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### DEVELOPING THE SOUTH'S RESOURCES IN MEN AND MATERIALS.

Referring to the development of sulphur, timber and transportation interests in Louisiana by Northern capital, as mentioned in recent issues of the *MANUFACTURERS RECORD*, the New Orleans *Picayune* says:

It probably makes no difference whose money and foresight reaps the rich rewards which the great natural resources of Louisiana and the other Southern States offer, but as a mere matter of sentiment it is regretted that the development was not made by our Southern intelligence and capital. But what has been done is a mere suggestion of the vast work yet to be developed and of the immense fortunes that are to be dug out of our State, which abounds in salt, sulphur, oil and gas.

The *Picayune* is very generally wise in its conclusions, but it is, we think, in error this time, for it does make a great deal of difference as to whose money and foresight reap the rich rewards from the development of the resources of the South.

The South should welcome outside capital and give it the amplest protection; it should welcome the incoming of outside people and make sure that their coming will be alike profitable to themselves and to this section; but it would be vastly to the credit and to the financial benefit of the South if its own people were investing their own money and their own energies to a larger extent than they are doing as a whole in the development of the magnificent resources of this section. Thousands of opportunities unutilized are lying idle in every part of the South, and thousands of boys and young men, white and black alike, are loafing around depots and country stores, wasting their time and destroying their bodies and their souls by idleness and

thriftlessness. The men who are working with brain and muscle and money are having to carry the burden of the thousands of idlers. The latter live and, therefore, somebody is supporting them, and they are thus necessarily burdens on the community. The man or the boy who works is an asset to the community; the man or the boy who loafs is a liability, and somebody is paying the cost of the debt.

In the history of the Louisiana sulphur development—and it was based on some facts in regard to that published in the *MANUFACTURERS RECORD* which called forth the *Picayune's* editorial—there is a striking illustration of how the South loses a portion of the wealth that it would secure by the development of its resources by home people. For many years it had been known that this sulphur deposit existed. The entire property was offered to a Southern man then living in New Orleans for \$15,000, but he did not think it was worth that, because nobody had found a way to mine the sulphur profitably. After years of experimental work Northern capital was about to abandon the undertaking, when a new system was proposed, more money was put up, and under the direction of Herman Frasch a way was found to solve the problem of getting this sulphur out. It is true that the output of this sulphur has added to the wealth of Louisiana, increased trade in that section, given employment to people and furnished the raw material for many lines of industry; but the ownership of the property is held in New York, and the vast profits which have been made, profits that are fabulous, have naturally and properly gone to the New York people whose money made possible the utilization of Frasch's skill. In this fact is found an illustration of how the South needs to develop to the utmost extent the technical skill of its own people, that solutions may be found for many of the problems confronting this section in the utilization of its resources, for what Frasch did only typifies what thousands of other men will do in the years to come in producing by technical skill the largest results out of Southern resources. So great are the resources of the South that their development will furnish an opportunity for billions of outside capital to be profitably invested, and for millions of outside people to settle here to their own profit and to the broadest advancement of the South. But while doing everything in its power to win this section brains and brawn and money from elsewhere that can be profitably employed here, let the South turn its attention to a greater extent than it has ever done to the utilization of the raw material of its own people. It has vast resources in timber, soils and water-powers, but it has vaster resources in undeveloped, unutilized people who, if rightly trained and developed, would add immeasurably to its wealth and to their own advancement.

### FAST RESOURCES OF THE SOUTH FOR MINERAL INDUSTRIES.

Of the fifty-seven useful minerals mined in the United States every one, except borax and platinum, is produced in the South which, on the other hand, produces practically all the phosphate rock, tin, bauxite, manganese, sulphur, monazite, zircon, barite and fuller's earth, and nearly all the mica and pyrite of the country. This condensed inventory of the mineral resources of the South, which can easily yield double or quadruple the present output without strain or waste, is presented in one of the many articles by experts of the United States Government which will appear in "The South: The Nation's Greatest Asset," to be issued March 27 by THE *MANUFACTURERS RECORD*. Among the contributors on this subject are Dr. David T. Day, Edward Wheeler Parker, Ernest F. Burchard, A. T. Coons, W. C. Phalen, Jefferson Middleton and C. E. Sieben-thal, all of the United States Geological Survey.

In this group of practical and interesting articles it is shown, for instance, that the combined coal areas of Great Britain, Germany, Russia, France, Austria-Hungary, Belgium and Spain are 44,000 square miles while the South's coal area is 87,500 square miles. The supplies in the South are nearly four times those of England and more than four times those of Germany, but they have not been, nor are they being, drained at the same rate. During the past ten years Great Britain has produced 2,800,000,000 tons and Germany 2,150,000,000 tons, while in the same time the South has produced 862,000,000 tons.

Missouri is the center in this country and in the world of lead and zinc productions and a significant result of the development of the natural gas field of Oklahoma, is that at the close of 1912 that State had the largest zinc smelter in the country, the next largest being in West Virginia.

The mining of bauxite, the mineral which forms the present commercial source of metallic aluminum, is confined at present to the South, the industry centering in Arkansas, Georgia, Alabama and Tennessee, the annual output having a value of more than \$750,000.

No region of the country is better supplied than the South with valuable clay deposits, and almost every geologic age and every variety of clay are represented there. The South is the principal source of the highest grade of clay kaolin or china clay, and the production of fuller's earth in the United States is almost exclusively a Southern industry, Florida alone marketing nearly seven-tenths of the total output in the country.

So, too, with building stones, the South has all the varieties which enter into commercial markets, such as the limestones, granites, trap rock, the marbles, the sandstones and the slates, and demands upon the Southern quarries come from all parts of the United States.

The resources in cement-making materials imply a vast field in the South for the Portland cement industry. Its supplies of raw materials are inexhaustible and most advantageously located, fuels are close at hand of high grade and widely distributed, splendid manufacturing sites are abundant along the railways and cheap electric power can be generated from the streams. The local market is rapidly increasing and the export trade is bound to expand. In ten of the sixteen Southern States there are already twenty-two plants in operation turning out 11,000,000 barrels of cement annually.

The South is now mining 3,400,000 tons of phosphate rock annually, an increase from 211,277 tons in 1880, and is exporting 1,200,000 tons a year. Begun in South Carolina in 1867, the mining of phosphate rock has increased with great rapidity, the known phosphate deposits of the South being in South Carolina, North Carolina, Tennessee, Georgia, Alabama, Florida, Mississippi and Arkansas. Florida, where commercial mining began in 1888, six years before the phosphate development in Tennessee, is now producing four-fifths of the country's output.

Since 1880 the South has mined 126,529,584 tons of iron ore, it has had an output of 802,200,000 barrels of petroleum, it has increased its annual production of natural gas from a few million cubic feet to 290,000,000,000 cubic feet, or nearly 57 per cent. of the total output of the country, has changed radically the status of the sulphur market of the world by exploiting beds of nearly pure sulphur and increasing the country's output from 336 tons to nearly 790,000 tons a year and has increased the annual value of its mineral production from \$18,226,000 to \$385,700,000.

With all of this progress, only a beginning of the mineral development of the South has been made and the lines of future exploitation are sketched graphically in "The South: The Nation's Greatest Asset."

### ECONOMIC OPPORTUNITY IN UTILIZATION OF RESINOUS WOOD WASTES.

Among the industrial chemists who made a tour of the South last fall after attendance upon the International Congress of Applied Chemistry was Dr. Siegfried Erbslöh of Düsseldorf, Germany. For this issue of the *MANUFACTURERS RECORD* he writes an interesting article, sketching his impression of the South and its wonderful resources, and in it he alludes to the economic possibilities in the application of chemistry to the derivation of material for paper from wood. His allusion dovetails with the suggestion of Charles E. Chidsey of Pascagoula, Miss., published on another page of this issue, emphasizing the fact that millions of dollars may be derived annually from the utilization in industry of the stumps, the pine tops and lumber mill wastes of the South. Mr. Chidsey, who is well known to the readers of the *MANUFACTURERS RECORD* as a persistent and practical worker for the material development of his section, takes the ground that the time is approaching when in Southern lumber plants the lumber will be a by-product and the chemicals and other derivatives from the wood will be the main desiderata.

Good grounds for such a suggestion are offered in a recent bulletin of the bureau of chemistry of the National Department of Agriculture, which is reproduced, in part, on another page of this issue. The bulletin embodies the findings by F. P. Veitch and J. L. Merrill of experiments intended to demonstrate the potentialities of the wastes of pine. Already good grades of paper are made from pine wood, the recovery of wood turpentine, pine oils and other substances from resinous woods by steam or destructive distillation has been worked out, and it has been found profitable to produce rosin oils, tars and pitches from common rosin. But only a beginning has been made in the processes which promise so much for the real conservation of some of the natural resources of the country. The investigators calculate that fully 8,000,000 cords of waste resinous woods are annually produced in the lumber industry, and that this material could be made to yield all the wrapping, building and other low-grade colored papers, and all the rosin, oils, turpentines, rosin spirits and methyl alcohol which are now being produced otherwise in this country. They suggest the feasibility of combining the three well-developed chemical industries, paper-making, wood distillation and the manufacture of rosin oils, and present the following tentative statement of results:

The approximate yields for 4000 pounds of cord air-dry wood (3200 pounds moisture-free wood) of the valuable products and the value of each, together with the total value produced from a cord, is shown in the following table. The values are approximate wholesale values at the plant:

Refined wood turpentine, 6 gallons, at \$0.40	\$2.40
Pine oils, 7 gallons, at \$0.35	2.45
Rosin spirits, 11 gallons, at \$0.30	3.30
Rosin oils, 40 gallons, at \$0.35	14.00
Phenoloids, 12 gallons, at \$0.66	7.92
Crude methyl alcohol, 3.5 gallons, at \$0.35	1.23
Unbleached pulp, 1400 pounds, at \$0.0175	25.20
Total	\$48.17

Thus products worth \$48.17 are made from wood which costs from \$2 to \$4 delivered at the works.

All these products are of good quality. The wood turpentine, pine oils and rosin spirits are suitable paint and varnish thinners, especially for outdoor work; the rosin oils are suitable for making greases; the phenoloids are used for shingle stains and

preservatives, and the pulp for making a good strong brown wrapping paper, quite similar to that now selling from 3 to 4 cents per pound.

If 8,000,000 cords of wood waste annually available could be thus converted into commercial products, there would be added to the annual value of forest production \$385,000,000. Many years will probably pass before this great opportunity will be fully realized. Its attractiveness, however, ought to speed the efforts of every man to whose intelligent attention it may be presented to have advantage taken of it. For the utilization of this great source of wealth will mean not merely so much more immediate profit each year, but the development of an efficient factor for prolonging the life of the country's forests.

### RETURNING TO SANITY IN EDUCATION.

One by one the fads are fading after having served their purpose of giving "experts" a standing among impressionable folks and an easy living. Into the heart of things goes the intimation credited to a professor of psychology that the psychology of the moment is by no means a practical science, but is inundated with convention and obsolete ideas that must be gotten rid of before students of it would ever get anywhere at all. And to think of the mass of gibberish and fad-patter which has been produced during the past twenty-five years, especially as related to child psychology as an alleged fundamental in pedagogy!

The pronouncement by the psychologist is but one of the many symptoms of the possibility of a return to reason in the educational propaganda of the country. Another is the recent discovery that money was being wasted upon attempts to enforce a compulsory school attendance in New York City. Now comes the statement of an "expert" that trade schools in the common school system are inefficient. This criticism carries with it an exceedingly practical suggestion, which is based upon experience already proved out. It is that groups of manufacturers should arrange with the public-school system, so that the manufacturers will institute and carry out a comprehensive apprenticeship course in their particular trades in conjunction with an agreement that the schools shall give to the apprentices general and specialized instruction, the amount of school instruction being equal to the amount of shop work, and the apprentices being paid for their work in the shop on a regular apprenticeship scale.

Such a system, co-ordinating school and shop, has been instituted recently by the Illinois Central Railroad Co. It has many advantages. The so-called trade schools, or manual training, in the public schools overlook the fundamental fact that the minor can receive his best impression of what work really is only in receiving compensation in money for his work. There are a few rare spirits here and there in the world who enjoy work for the work's sake alone, for the gratification in the sense of achievement, without the slightest reference to money return. But the average minor, under misdirected training of the past twenty-five or thirty years in the public school and elsewhere, has been misguided into a conviction that work is something to be avoided as well as possible, especially work requiring intelligent use of muscles. Consequently, ranks of the so-called profession, clerkships and other

middle-men occupations are crowded often by incompetents, while the fields and the shops of the country offering opportunities for productive and remunerative work are undermanned. Hundreds of thousands of men and women have been crippled by long-sustained miseducation; a return to common-sense principles cannot be made too soon. The combination of shop and school upon a wage basis points to the straight road for that return.

### ELECTRIFICATION OF RAILROADS.

The announcement that the Chicago, Minneapolis & St. Paul Railroad is taking steps for the electrification of many miles of its lines in the Northwest, and the advantageous results of the operation of the electrically-equipped part of the New Haven system, constitute marked assurances of the practicability of the extensive adoption of this method of power utilization throughout many sections of the country.

The cost of electrical power depends largely on the proportion of the available capacity of the power plant that may be utilized by the demands for power and uniformity of this demand. If all the power that can be developed by a given hydro-electric plant were required throughout every hour of the day and night at a fairly uniform rate, the cost of such power would be small compared to the necessary charge for power under conditions in which large demands are made at certain hours and in which the requirements at other times are small. The application of this power to the operation of railroads approaches the conditions of economical use of the power, so that the benefits of such application are general. A part of the surplus of the full power of the hydro-electric coal or oil fuel plant is utilized by the railroads and at a comparatively low rate, carrying its share of the production cost, thus enabling irregular users, the electric-light lines and the manufacturing plants using the power at stated times to obtain electrical service at a fair rate. This feature of electrical production will undoubtedly have a far-reaching effect upon the adoption of the use of this means of propulsion on extensive lines of railroad, particularly within the range of hydro-electric power developments and of increasing the mileage of city and interurban lines.

The advance being constantly made in the design and manufacture of electrical machinery for operating railroad locomotives and cars with individual power equipment also adds to the practicability of more general adoption of electric power by railroad lines. The designing engineers of the great electric equipment manufacturers are constantly making improvements and bringing out new equipment to meet the varying conditions that may be presented. The problems of providing efficient transmission lines that will stand the strains, and at the same time carry the current for great distances without excessive losses and at a cost for wire which may not be excessive, are being successfully met, and all conditions looking toward the more general use of electric power by railroads are becoming increasingly favorable. Some of the newer railroad lines of the South and Southwest have been thus equipped, and it may be readily appreciated that these shorter lines are but the forerunners of greater developments as the sources of electric

energy are brought increasingly under the control of the machinery that converts the power into electricity.

### A DEMOCRATIC INCOME TAX.

Interesting developments are suggested in a dispatch from Washington to the *New York Times* to the effect that the income tax which the next Congress may impose upon the country is expected to levy a tax of 1 per cent. upon incomes; that it will probably be so framed as to incorporate the present corporation tax, and that, while a number of House Democrats are considering the advisability of having the tax paid upon all incomes over \$1000, the indications are that the tax will be levied only upon incomes more than \$5000 a year.

In the first place, a really genuine democratic tax law can respect no person. It should recognize the fact that every citizen must bear his share of the burden of government, and that, if incomes are to be taxed, every income should be taxed, whether it be \$10 a year or \$10,000,000. It should also provide that no person, white or black, male or female, shall be thus taxed unless such a one have the privilege of voting and, conversely, that no person not having a tax-paying income shall be allowed to vote.

In the second place, the incorporation of the corporation tax law with the new income tax law would require the elimination of the \$5000 limit from the existing law if pure democracy is to prevail, as well as the provisions exempting certain classes of corporations from the operation of the law. Again, to insure justice in the imposition of the personal income law, regard must be had to the fact that the corporation income law deals with net income, which opens up a wide field for discussion as to the definition of the word income in the personal tax. It also directs attention to the danger of working the injustice of double taxation in including in the personal income money derived from capital invested in corporations that are already paying an income tax.

It is hardly conceivable that a court, not regarding itself as a quasi-legislative body charged with interpreting legislation according to its best judgment as to its effects upon the country, but applying strictly the rule of the Constitution, could hold that the present corporation income law, thinly disguised by its wording "excise," meets the requirements of the Constitution. If the discrimination in favor of certain classes be carefully considered. So, too, any personal income tax law discriminating among persons or classes would be manifestly unconstitutional, although it might not be so declared by the courts.

If precedents of the past Congress may be held to be a criterion of the probable conduct of the next Congress, it is reasonable to believe that in the application in legislation of the sixteenth amendment to the Constitution the fundamental spirit of the Constitution will have little influence, and that the supposed necessities for an income tax will not check the members of Congress from increasing their own salaries at will, or from widely expanding the scandal of the National pension disgrace, including liberal provisions in the way of sinecures at the expense of the people of the country for the elements of the Congressional scum-heap itself.



## FOLLOW HIS EXAMPLE.

Lewis T. Baxter of Nashville, Tenn., writing under date of March 10, says: I enclose postoffice order for \$3 for six copies of "The South: The Nation's Greatest Asset."

I am very anxious indeed to see a publication which will contain more valuable information than "Thirty Years of Southern Upbuilding," i. e., if such a thing is possible.

And then Mr. Baxter sends the names of several people in different sections of the country to whom he desires these copies mailed, in order to broaden their knowledge of the South.

If, when Mr. Baxter has received his copy of "The South: The Nation's Greatest Asset" and carefully studied it he does not write more enthusiastically about it than he did last year about "Thirty Years of Southern Upbuilding," we shall be greatly mistaken.

## A BRIEF FOR WATERWAYS.

Albert H. Scherzer of Chicago, who for a number of years has been active in the campaign for the well-rounded and comprehensive improvement of the waterways of this country and has written voluminously on the subject, has just published a striking pamphlet entitled "Great Money Energy for Individual and Public Welfare," in which he has embodied a vast amount of suggestive material representing the results of patient and intelligent research, designed to emphasize the opportunity before the people of the country in a proper handling of the waterways problems. With maps and diagrams Mr. Scherzer drives home his arguments made effective by comparisons of this country with other lands. For instance, in illustration of his contention that deep-water facilities are a direct aid to intense railway development, he shows that on less than 60,000 square miles of land England and Wales already support \$5,000,000,000 of railway capital, an average of \$250,000 per mile, because deep-water channels are constantly being improved and extended inland, bringing deep-water traffic near to every part of England, thereby continually bringing closer all countries of the world to the center of this very small land area. Thus all lands of the world are being economically annexed to England, increasing commerce, manufactures, population and ability to compete in the markets of the world and consequent ability to support the ever-increasing railway improvements and capital. On the other hand, he shows that the United States has fifty times as much land and about three times the population of England and Wales, more than \$130,000,000,000 of wealth compared with \$70,000,000,000 of England and Wales, and with its area supporting \$15,000,000,000 of railway capital, or only \$60,000 per mile. Mr. Scherzer's argument that the efficient coast line of the United States can be economically increased by a 24-foot channel in the Mississippi from the Gulf of Mexico to the St. Lawrence, by way of the Great Lakes, recalls the argument of John C. Calhoun in 1845 before a Southern and Western convention at Memphis, that the Mississippi was a great inland sea subject to the care of the General Government. Mr. Scherzer contends that the present situation as to waterways is a splendid opportunity for the entire people of the country to be benefited through Governmental activities, and he says that if the Federal Government should expend during the next fifty years in constructive work only part of the energy it has expended in the past fifty years on work necessarily involving destruction, many lives would be saved and the direct returns to the people and the benefits derived by them would be great and permanent.

## Southern Potentialities as Viewed by a German Scientist.

Dr. Siegfried Erbsküh of Düsseldorf, Germany, one of the members of the International Congress of Applied Chemistry, who made a tour of the South last fall, has written to the MANUFACTURERS RECORD giving his impressions. He is still on this side of the Atlantic, and writing from Toronto, Canada, he says:

"Looking for the chances of industrial development in the South, which we found much more advanced than it is generally known in Europe, I think that there is one reason in the economic development of today especially favoring the South. In all branches of industry the opinion grows day by day that the best course is to manufacture the raw materials just at the place where they are found. In that way the costs for freight and stock and many other expenses are saved. Today the South of the United States is one of the great sources of raw materials for the whole world. I think there are conditions which will make it one of the biggest industrial centers, too. Because you find there not only the raw materials for nearly all kinds of industry, but also the various forces necessary to get the power for manufactories.

"Our American guides and the local committees of the different cities on our journey succeeded in the best way to convince me, and, as I think, all my fellow-travelers, that those conditions are the best, and that the natural resources are nearly inexhaustible.

"A good many of the agricultural products of the South which are sent today all over the world may be manufactured in the South itself. You see, for instance, that Armour and Swift have already built big factories in Fort Worth, and, as far as I can see, there are the best chances for this packing-house industry based on the famous Tennessee cattle.

"The pulp and paper mills find their stuff in the large forests of the South. Paper is an article of an ever-increasing consumption, so that this industry may have a good chance in the future. The climate favors the growth of the trees, and there is one tree especially suited for a strong, good paper, the chestnut, which does not grow at all in the northern part of Europe.

"Of all the other products growing on the fertile Southern ground I mention only cotton. Most of the cotton used over the world is raised in the Southern States, but the quantity of cotton goods manufactured in Charlotte or other Southern cities is still small, compared with the enormous consumption of the world.

"Perhaps more important are the mineral products for the development of industry. As I have seen, the South has large resources in this direction, and the success of the industry already developed proves that there are great prospects for the future. We saw on our trip nearly all the stuffs which human civilization gets from the interior of the earth to be used for very different purposes. We saw coal, iron, chalk, marble, clay, sulphur, copper, oil, natural gas, etc.

"Regarding the chemical industry, I think that there may be a future development, too. The conditions of the South are of the best in many respects. But you have to recall that the chemical industry developed last of all the industries in modern times. The reason is that it sells its products for the most part to the manufactories. So the development of this industry may not be so fast in the next few years, because the market for its products is still small. Later on, I have no doubt, there will be a big development in this direction.

"But the development of a country depends not only upon the natural resources and conditions. It depends as well upon the people who have to do the work. The Southern people have proved that they are well fitted for their great task of developing and civilizing their large country, because they are not only willing to do their best, but also they have shown their talent for commercial and industrial affairs. I may sincerely say that, of all

the plants I saw on our long trip, those in the South were the best organized and the most advanced in modern methods. There is no doubt that in other parts of the United States an awful lot of stuff was wasted in the first period of industrial development. I hope that Southern people will not go this wrong way, but save their large resources and use them in the same economic manner as European people are forced to do. That is a very important point, to which Dr. Marckwald has already referred. I am glad to add to his warnings my opinion that Southern industry proves by many of its plants that it will avoid the faults of older parts of this continent, and as a German I am proud to see that the Southern people learned a good deal from my countrymen and their industrial methods.

"The best thing I gained on my journey is the impression that there is a hearty industrial connection between the people of the Southern States and German engineers, which cannot fail to be beneficial to both of our great nations."

## Progress in the Southeast.

By M. V. RICHARDS, Land and Industrial Department, Southern Railway Co.

It is nearly or quite 25 years since I became directly interested, through my railway connections, with the development work looking to a richer, a more prosperous and a more advanced agricultural, industrial and commercial South. In all these years the MANUFACTURERS RECORD and its editor have been in the forefront in special and general efforts to build a greater South through the utilization of the South's resources and the addition to the South's facilities of production and distribution. The changes which have taken place in this quarter of a century have more than justified the belief we held in 1888 as to the advantages and opportunities which lay in the South and the work which various agencies, from the individual citizen to the well-organized commercial club, industrial department, State association or newspaper enterprise, have done.

The advance in the Southern States has not merely been along commercial and industrial lines. It has included in its upward sweep everything—the building of cities and towns with every modern improvement of the latest and best pattern and character, the wide extension of educational activities and the pronounced betterment of all school work, a greater understanding of the value of Southern lands and a vastly increased prosperity to Southern farmers, and a wider, better and more effective outlook on the part of the Southern people, a firmer and better position of the South in the general affairs of the nation, not merely political, but in the thought, the achievements and the ambitions of the American people.

If it were possible for me to give concrete figures it would be easy to show this to everyone. But it needs no concrete figures to show that the South's progress has been simply wonderful. To the man who rides on the Southern railways, through the prosperous factory towns, who visits the large and small cities and the wide-awake villages and towns, who watches the activities at all the Southern ports or who reads the news about Southern industries, this progress is evident. It is almost as much the subject of comment in other portions of the country as it is in the South itself, while the business man and the investor in Europe takes notice of it.

In the 20 years from 1889 to 1909, census years, no less than \$1,076,000,000

were added to the capital invested in the manufacturing plants in our nine Southeastern States—the old South. This means that between these two periods the factories of the section had quadrupled in capital invested, in their output and in the wages paid to their employees. The same striking advance has been made along all lines.

To me the South's growth is perhaps best shown by the growth of the cities and towns, both those which are the centers of manufacturing industries and those which depend for the most part upon the trade of the surrounding country. Of the larger places there need only to be mentioned such places as Richmond, Norfolk, Lynchburg, Danville, Charlotte, Winston-Salem, Greensboro, Columbia, Spartanburg, Greenville, Atlanta, Savannah, Augusta, Macon, Columbus, Ga.; Jacksonville, Birmingham, Montgomery, Mobile, New Orleans, Memphis, Chattanooga, Knoxville and Meridian. A quarter of a century ago the manufacturing interest was developed only to a moderate extent in practically all these places. Today it is not only large in every one, but the variety of industries represented is of the widest character, and a very large proportion of the plants are making goods for country-wide or world-wide distribution. The jobbing interest has had a like development in most of these cities. It takes of the trade of adjacent territory and reaches out to the whole South. The center of distribution for merchandise consumed in the South has been in large measure transferred to the South, and there has developed a class of business men of the highest standing for enterprise and aggressiveness. A quarter of a century ago there were comparatively few Southern cities which were on a par with those in the North in the character or the extent of their municipal improvements or in the character of their buildings. All this has changed. Well-paved streets, the most adequate sewerage systems, fine park systems, residential streets and districts of beauty and attractiveness, tasteful, substantial buildings showing the best architectural planning, adapted to the best purposes. Not long ago the hotels of the South were a by-word. The traveler was constantly complaining about their facilities and the way in which they were run. Visitors from other sections avoided a great many places, and large

numbers were kept out of the South because they could not find the class of accommodations they desired. Today first-class hotels are found in every city, and the number of modern, well-kept houses is increasing just as fast as the business demands.

As has been the growth and development of the larger places, so has been the advance of scores and hundreds of smaller cities and towns. Many places have grown from the smallest villages into cities and manufacturing and commercial centers. High Point, N. C., had no place in the census figures in 1890. Today it is one of the great furniture-making centers of the nation. The flourishing town of Altavista, Va., is an entirely new town, less than a half dozen years old. Such are Kannapolis and Spray, N. C.; Aragon, Ga., and there are many more newly-located towns which have had a large growth and assumed positions of importance.

Of the smaller cities which have had a splendid development along the same lines as those of the larger cities are such places as South Boston and Martinsville, Va.; Salisbury, Hickory, Statesville, Concord, Albemarle, Lexington, Morgantown, Hendersonville, Canton, Gastonia, King's Mountain, Goldsboro, N. C.; Rock Hill, Chester, Union, Laurens, Anderson, Orangeburg, Bath, Greenwood, Pelzer, S. C.; Rome, Dalton, Jackson, Brunswick, Valdosta, Tifton, Griffin, Gainesville, Ga.; Anniston, Gadsden, Huntsville, Sheffield, Florence, Haleyville, Russellville, Jasper, Tuscaloosa, Decatur and New Decatur, Demopolis and Selma, Ala.; Columbus, West Point, Tupelo, Okolona, Corinth, Greenwood, Winona and Greenville, Miss.; Bristol, Johnson City, Greenville, Morristown, Harriman, Cleveland, Jackson, Tenn.; Lexington, Danville and other places in Kentucky, and Palatka, Pensacola, Tampa and other places in Florida.

Think of the wonderful growth of Durham, N. C., through the great tobacco and mill interests; of Raleigh, a capital city which has grown into a great industrial, commercial and financial district; of the new activities at West Point, Va., which will make that an important port; of the steady progress of conservative Charleston, with the continued development of its shipping and its trade.

The progress of the South is equally well shown by the advance in different lines of industry. Twenty-five years ago the iron business was well started, there were a number of successful tobacco plants, a few furniture factories, a few cottonseed-oil mills, while the textile industry was scarcely advanced enough to be considered by the textile manufacturers of the North or of Europe. The lumber industry and the turpentine industry were, of course, well advanced because of the great forest areas. How different it is today. The lumber industry, in spite of the great inroads on the South's forests, is far ahead of that of 25 years ago; the turpentine industry is only a minor one as compared with the others under their great progress. The iron and steel industries have doubled and quadrupled, though the iron deposits have scarcely been touched. The textile industry, still growing, has advanced until the 11,000,000 spindles represent two-thirds of all there are in the country. A great furniture industry has sprung up. The cottonseed-oil industry is represented by hundreds of mills in which millions of dollars have been invested. There has developed a very large clayworking industry, and this is something which is likely to have a much larger growth in the immediate future. Coal and iron mining, marble

and granite quarrying have assumed a most important position.

Very few counties in all the South in 1890 had more than a mile or two of good roads. The people were not interested in securing them, most of them did not know how to get them, and financially the South was in no condition to build them. Today we have many single counties which have invested a million dollars in good highways, and practically every State is spending each year several million dollars for better highways. The South has almost taken the lead in the nation in this respect.

What wonderful advance there has been in the schools and colleges! There is scarcely a town which does not have a good school system and good school buildings. The country school has been brought up to a much higher standard, the township schools, the county high schools, the industrial and the district agricultural schools have been introduced, the State agricultural and technical colleges and normal schools have been given high standing, the State universities compare with any in the country in character and efficiency, while millions have been donated to colleges and universities.

The advance in agriculture has, in a way, changed the whole outlook in American agriculture. It is today seen that the South, while its industrial importance is to grow into a larger and larger factor in American industries, is to be the greatest of the country's agricultural sections. Farmers in the South have largely become a most prosperous class; the agencies now at work will make the farm prosperity more general, and this will attract to the Southern lands the best classes of farmers from the outside.

It was hard to get the attention of investors, manufacturers and homeseekers 25 years ago when you talked of Southern opportunities. Today it is comparatively easy. Why the difference? The achievements in every line, the greater knowledge of Southern resources and conditions.

The great growth will continue.

### Publicity Pays.

[Troy (N. Y.) Times.]

The value of publicity receives fresh illustration in West Virginia. One of the railroad companies in that section is advertising the State to attract settlers and investors. West Virginia has a State Board of Trade, and at the last meeting that body was addressed by the general passenger agent of the company, who gave details of the work which has been carried on for two years. Liberal use is made of advertising in newspapers and other periodicals. In his address this general passenger agent said: "In a well-known publication you have perhaps read the full-page announcements giving all sorts of valuable information in regard to the State of West Virginia and its unlimited resources." The advertisements have been prepared with care, to present the facts and avoid misrepresentation and exaggeration, and are proving effective.

The Baltimore MANUFACTURERS RECORD says: "The advertising had in view widespread publicity of the facts about the State, calculated to attract the attention of capitalists and homeseekers to its many and diversified opportunities." In the benefits from such work, it is added, all communities in the State share, directly or indirectly. This is true of similar practices in other localities, and advertising the special advantages to be found in any region is coming to be relied on to make those advantages known. The idea is growing in favor not only with railroads, which find that in this way they

increase their profits and build up prosperous communities, but with State and municipal authorities. In several Commonwealths well-organized publicity bureaus are maintained. There are many parts of New York State where there are exceptional chances for development with proper publicity.

### A \$60,000,000 COMPANY PROPOSED

#### Plans for Merging Louisiana Sugar Factories Into One Corporation.

Charles A. Farwell, president of the American Cane Growers' Association, New Orleans, wires the MANUFACTURERS RECORD as follows:

"It is proposed to organize many of the 165 sugar factories in Louisiana into one company for the purpose of diminishing operating expenses, manufacturing better quality of sugars and molasses and better distribution of its products. This move has been made necessary by reason of threatened reduction in tariff, which, if drastic, may annihilate industry in this State.

"Should tariff be reduced to point to make cultivation of cane impossible the plan will not be carried out, and the enormous amount of money now invested in machinery for sugar manufacturing in Louisiana would be entirely lost, while depreciation in value of lands would be considerable."

The organization committee of the Louisiana Sugar Manufacturers has issued a circular to the sugar planters of the State, enclosing a letter from Mr. Sol Wexler, who proposes the organization of the Louisiana Cane Sugar Co., with the assurance of his ability to provide the necessary cash capital provided the tariff on sugar is not reduced to a point that will prevent the cultivation of cane. Mr. Wexler's plan also contemplates the organization of a subsidiary company with a capital of \$1,000,000, to be known as the Agricultural Credit Co., the purpose of which will be to furnish growers of cane entitled to credit with the necessary funds for the carrying on of other planting operations. Such advances are to be made at the lowest rate of interest and without any commissions or other charges, the object of such a corporation being to materially assist the planter to produce cane at the lowest possible figure rather than to make a profit. The committee is of the opinion that the time is opportune for the carrying out of the entire plan, and that all of the results set forth in the letter of Mr. Wexler can be accomplished.

Mr. Wexler's plan proposes the organization of a company with \$15,000,000 of first preferred stock (or bonds), \$20,000,000 of second preferred stock, or first preferred if bonds are issued, and \$25,000,000 of common stock.

Of the \$15,000,000 of first preferred stock (or bonds), \$10,000,000 are to be sold, and out of the proceeds there is to be paid to the owners of the sugar factories, railroads, equipment, etc., taken over an amount equal to 20 per cent. in cash, with 80 per cent. in second preferred stock. The remainder of the proceeds, between \$5,000,000 and \$6,000,000, is to remain in the treasury to provide cash working capital. Such proportion of the second preferred stock as shall not be issued in payment of the remaining 80 per cent. of the purchase price of the sugar-houses, railroads, etc., is to remain in the treasury for the acquisition of other plants in the future. There is to be delivered to the owner of each sugar factory purchased under this plan an amount of common stock equal to 50 per cent. of the appraised valuation of his property. It is proposed that the charter shall provide

that the company shall not engage in any planting operations in order that under this method the landowners can continue to produce the cane and sell it to the company without the necessity of operating independent sugar mills. It is said that a sufficient number of owners have intimated their willingness to enter into this plan to insure the handling of about 2,600,000 tons of cane, representing now about 100 sugar mills. It is the intention of the organizers, if the plan works out, to reduce the number of mills to about 50, locating these at strategic points and of sufficiently large individual units to handle each approximately 2000 tons of cane per day, connecting each plant with a sufficient mileage of tramways to cover adequate territory to furnish the needed amount of cane. It is calculated that 50 plants can handle the entire cane output to much better advantage than the 100 now operating, and save in operation by reducing the number of workmen, lessening the annual repairs, lessening the freight paid to railroads, and by having thoroughly modern and up-to-date plants of large capacity can handle the cane at much less cost than existing plants.

Mr. Wexler's letter stated that the necessary cash capital of \$10,000,000 can be secured predicated upon the tariff on sugar not being reduced to a point which will make the cultivation of cane in Louisiana impossible.

The committee in charge of the plan is as follows: J. P. Kock (chairman), Charles A. Farwell, Horace Wilkinson, John A. Pharr, J. Supple, Jules Godchaux, Jules M. Burguières, F. B. Williams, John D. Minor, Jules J. Jacobs, B. A. Oxnard, M. Billeaud, Jr., J. L. Gaudet, L. M. Soniat and Myer Lemann.

### To Enlarge Texas City Terminals.

A dispatch from Texas City, Tex., says that the expenditure of at least \$1,000,000 in enlarging the ocean terminals of the Texas City Transportation Co. is expected to be made this year as a result of the passage of the rivers and harbors bill, carrying \$1,400,000 for Texas City harbor. Under this appropriation a dike extending from the mainland at Shoal Point to Bolivar Roads along the north side of the Texas City channel will be built to divert the currents from the upper bay and reduce the cost of maintaining not only the Texas City channel, but Galveston channel as well. Under this appropriation the Texas City channel will be widened to 300 feet and deepened to 30 feet throughout. The dike will be built of creosoted piles and timbers and brush, the last named being held down by the material dredged in enlarging the channel.

While no confirmation has been secured, it is believed that the improvements to be made by the Texas City Transportation Co. during the present year will embrace the building of another pier, adding a third to the improved water frontage. When approached today H. B. Moore, representing the Texas City allied interests, stated he was unable to announce just what improvements would be made, but that extensive enlargements to the wharves, warehouses and terminal yards would be made.

Referring to the above, J. R. Dillon of Texas City wires the MANUFACTURERS RECORD: "Annual meeting will be held about April 1, at which time plans will be worked out; nothing definite so far."

At this week's meeting of the American Society of Mechanical Engineers in New York the papers will be "Eye Strain and Light," by Dr. A. M. Alger; "Industrial Lighting," by Ward Harrison, and "Industrial Safety," by Dr. W. H. Tolman.



## Pulp and Paper and Other Products from Waste Resinous Woods.\*

The idea that the waste long-leaf yellow pine, Norway pine, Douglas fir and other woods rich in resins can be used for the making of paper, wood turpentine, rosin oils and similar products is not new, but the industry is just beginning to develop. It has received more or less attention in this bureau during the past seven years, where information as to its feasibility and practicability and as to the yields and character of the products which may be made has been gathered. This information points the way to the means whereby valuable timber may be conserved and the menacing waste wood of the lumbering operations may be profitably utilized.

The making of paper from these woods presents no unusual difficulties; in fact, several mills are running almost exclusively on such woods, while others use them in greater or less quantity. The recovery of wood turpentine, pine oils and other products from resinous woods by steam or destructive distillation has been fairly well worked out, and, when a plant is properly located and equipped and operated skillfully, this industry is proving profitable.

The production of rosin oils, tars and pitches from common rosin is also a thoroughly established, well understood and profitable industry.

With these successful results in view, it is at once clear that a combination of the three industries, using waste wood as the raw material from which all the products of these industries may be made, should be more profitable and require less capital, equipment and labor than the three when conducted separately. Since each of these industries, paper-making, wood distillation and rosin-oil production, is already well developed and the details quite well understood, no experimental demonstration on a manufacturing scale is needed to prove the practicability of the combination of the three. In short, such combination under one management is the most logical industrial condition.

Experiments were conducted with what is known in the South as "lightwood," which is long-leaf yellow pine that has lain in the forest until practically all the sap wood has decayed, leaving the heart wood sound. Such wood is rough, full of knots, and the greater part of it more or less charred from forest fires. For the experiments both the freshly prepared and the steam-extracted chips obtained from a steam wood turpentine plant were carefully selected to represent the average wood received at the plant.

The percentage of rosin which the chips contained was determined by extracting with ether and drying the extract in the water oven. The fresh chips contained 18.5 per cent. of rosin on the basis of the water-free wood, while the chips which had been steamed at the turpentine plant contained 19.3 per cent. The total oil recovered from the black liquor was approximately 2 to 4 per cent. lower than these figures.

The results are applicable only to average lightwood. Yields will naturally vary with the kind of wood employed. A cord of slabs and lap will yield less turpentine, rosin or rosin oils than a cord of

lightwood, while freshly split old stumps will yield more; old slabs and lap yield less than the fresh or green. In other words, the yields differ in quantity but not in kind with the character of the wood employed. The wood of long-leaf pine saw timber contains, as a rule, from 2 to 6 per cent. of resin and about 0.2 to 0.5 per cent. of turpentine, and the short-leaf pine saw timber about the same. It would probably not be profitable to attempt to recover rosin oils and by-products from wood containing as little as 2 per cent. of resin. The value of the by-products from such wood will rarely reach \$3 per cord, and even in well-designed and efficient works it is doubtful if a profit can be secured from them.

The experimental cooking was done in a small rotary digester holding about 4 kilograms (8.8 pounds); from 2 to 4 kilograms of air-dry wood were cooked at a charge. Wood and dilute alkali were placed in the digester, which was then rotated to insure perfect contact and heated during rotations until the pressure reached 40 to 50 pounds, when the digester was connected with a condenser and water and turpentine distilled at the stated pressure for the time stated in Table 1. The digester was then closed and again rotated for from 15 to 20 minutes at 40 to 50 pounds pressure and again relieved as before, this procedure being repeated four or five times. The condensed water and turpentine were received in a graduated constant level vessel in which the turpentine could be accurately measured after separating from the water. The volume of water condensed was also noted. After the turpentine had ceased to distill in measurable quantities the wood was cooked at different temperatures for various periods of time. The chips as received from the chipper were very irregular in size and shape; varying from coarse dust to pieces an inch thick and several inches long. They were screened into three sizes—those smaller than one-quarter inch mesh, 31 per cent.; those one-quarter to one inch mesh, 44 per cent., and those larger than one inch mesh, 25 per cent. of the wood. This separation was made in order to obtain data on the quantity of the various products that could be obtained from each of the several sizes and the time required to steam off the turpentine and to cook properly the chips of different sizes.

The supply of waste resinous wood suitable for the manufacture of paper, turpentine, rosin, rosin oils, methyl alcohol, etc., can be only approximately estimated. The census figures for the lumber cut in 1910 are: Long-leaf pine, approximately 14,000,000,000 board feet; Douglas fir, 5,000,000,000 board feet; Western pine, over 1,000,000,000 board feet; or a total of approximately 20,000,000,000 board feet. Authorities agree that at least 60 per cent. of the tree as it stands in the forest is wasted in converting it into lumber, and that 25 per cent. of the trees remain in the forests to rot or be destroyed in forest fires. That is, approximately 5,000,000 cords of waste wood are left annually in the forests in the lumbering of resinous woods, leaving out of consideration the dead and fallen timber in the uncut forest. This waste has been going on for many years. The sap or non-resinous part of the wood rots away in a few years,

leaving the heart or resinous portion, which will last indefinitely. Probably half of this annual forest waste becomes "lightwood," such as is used in the production of wood turpentine and tar. This material has been accumulating for years, and will probably continue to be added to for many more years.

In addition to this waste there is also a large source of supply in the stumps of cut-over lands and in the slabs and edging usually wasted at the mills. Altogether there are fully 8,000,000 cords of waste resinous woods annually produced in the lumber industry. This waste wood would yield all the wrapping, building and other low-grade colored papers, and all the rosin, oils, turpentines, rosin spirits and methyl alcohol which are now being produced in this country.

The following table shows the quantities of the several products which may be made from lightwood and from ordinary mill waste, both by cooking with caustic alkali, or first extracting with a volatile solvent and then cooking with alkali:

Yields of Various Products from One Cord (4000 Pounds) of Long-leaf Pine.

Products.	From light wood		From lean wood, mill waste, etc.	
	Alkali extraction. Distills between—°C.	Yield. Gallons.	Alkali extraction. Distills between—°C.	Yield. Gallons.
Crude oils.....	154-400	36-120	154-250	8-20
Refined turpentine.....	150-180	5-20	150-180	6-16
Pine oils.....	175-250	2-5	175-250	2-4
Rosin spirits.....	90-250	5-15	.....	.....
Rosin oils.....	250-400	20-60	.....	10-35
Creosote.....	100-400	8-20	.....	4-8
Rosin.....	.....	.....	*300-800	*15-400
Methyl alcohol.....	.....	.....	.....	.....
Calcium acetate.....	.....	.....	.....	.....
Charcoal.....	.....	.....	.....	.....
Paper pulp, unbleached.....	.....	.....	.....	.....
		*Pounds.	†Bushels.	

The data that have come to the attention of the Bureau of Chemistry indicate that the products from Douglas fir and from Norway pine stumps fall within the limits given above for long-leaf pine. As a rule, seasoned stumps should approximate the higher yields from lightwood.

The cost of waste wood delivered at the mills in the South varies widely, but rarely exceeds \$5 a cord. The Bureau of Chemistry has found that the average cost of lightwood delivered at the turpentine plants approximates \$3.50 a cord. In case the wood is gathered by a lumbering company from its own forests and over its own tramroads this cost frequently does not exceed \$2.50 and may fall as low as \$1 a cord.

The stumps of long-leaf Norway pine and of Douglas fir, after the timber has been cut several years, are usually much richer in resins than average lightwood. They are therefore especially suitable for the production of wood turpentine, rosin and rosin oils. If care is taken to free them from earth, they are suitable for making paper. The cost of stump wood is often decidedly higher, especially in the West, than that of lightwood, because of the difficulty of removing stumps from the ground. This is best done by blasting, which has been found to cost approximately 5 cents a stump for long-leaf pine of an average diameter of 13.6 inches. Approximately 45 such stumps, 2½ feet tall, will yield a cord of wood, which makes the cost on the land approximately \$2.25 a cord, which should be added to the cost of lightwood delivered at the mill, to give the approximate cost of stumps at the mill. The average cost of removing Douglas fir stumps varying from 1 to 4 feet in diameter is about 84 cents each in Washington State, and 9 such stumps, averaging 3 feet in length and 2 feet in diameter, will yield a cord of wood. This makes the cost of the wood piled on the land ready to ship approximately \$8 a cord, or possibly \$10 a cord at the mill.

In estimating the cost of removing and gathering stumps the increased value of

the land for agricultural purposes must be considered. The value of the land will in many instances, especially in the South, be increased sufficiently to pay for the cost of removing the stumps, and in other cases this increased valuation will greatly reduce the cost of the wood at the mill.

Paper makers will undoubtedly question the practicability of using stumps for making paper because of the earth adhering to them. This can be largely if not entirely removed by proper methods; and as material worth even less than wood a ton is profitably purified, it appears reasonable to suggest that stump wood can also be profitably cleaned for paper making, at least in those regions far removed from the paper-making centers.

It has been fully demonstrated, both in the laboratory and in the mill, that paper of good quality can be made from pine wood. The Bureau of Chemistry has called attention to this fact and to the industrial opportunities in this field in two former publications.

It is feasible to combine three well-developed chemical industries—paper mak-

ing, wood distillation (in a modified form) and the manufacture of rosin oils—and thus to obtain from a single raw material, waste resinous wood, practically all the valuable constituents which it contains. The country's sources of paper, turpentine, rosin oils and wood alcohol can be greatly augmented and the injury to forests by fire and insects materially reduced by the utilization of this wood. It is believed that the results presented here will hold, approximately, for good average lightwood, except as to refined wood turpentine, which should run higher than here found. Especially is this true of the long-leaf lightwood of North Carolina, which experience has shown yields more wood turpentine than does the lightwood of Florida. This fact is possibly due in part to climate conditions, the longer and hotter summer of the South volatilizing more of the light oils.

The approximate yields for 4000 pounds of cord air-dry wood (3200 pounds moisture-free wood) of the valuable products and the value of each, together with the total value produced from a cord, is shown in the following table. The values are approximate wholesale values at the plant:

Refined wood turpentine, 6 gallons, at 0.40 .....	\$2 40
Pine oils, 7 gallons, at \$0.35 .....	2 45
Rosin spirits, 11 gallons, at \$0.20 .....	2 20
Rosin oils, 40 gallons, at \$0.35 .....	14 00
Phenoloids, 12 gallons, at \$0.06 .....	72
Crude methyl alcohol, 3.5 gallons, at \$0.35 .....	1 20
Unbleached pulp, 1400 pounds, at \$0.0175 .....	25 20
Total.....	\$48 17

Thus products worth \$48.17 are made from wood which costs from \$2 to \$4 delivered at the works.

All these products are of good quality. The wood turpentine, pine oils and rosin spirits are suitable paint and varnish thinners, especially for outdoor work; the rosin oils are suitable for making greases; the phenoloids are used for shingle strains and preservatives, and the pulp for making a good strong brown wrapping paper,

\*From a bulletin of the National Agricultural Department by F. P. Veltch and J. L. Merrill.

quite similar to that now selling from 3 to 4 cents per pound.

As has been previously stated, there are works which are being profitably operated, making wood turpentine and pine oils alone from this wood. There are works profitably manufacturing rosin oils and rosin spirits from rosin made from the living trees, and others profitably making paper alone from wood. The combination of the three units into one industrial development appears, therefore, to be well worth the careful consideration of paper makers, lumbermen, investors, and especially of those interested in the conservation of material resources through the utilization of waste. It is believed that such a combination offers the most profitable use of refuse wood and stumps on the cut-over pine lands of the South and West.

The bureau cannot undertake to furnish details of equipment, nor estimates of cost of erecting and equipping mills for making paper and by-products from wood.

The cost of erection varies greatly with local conditions, and those interested should consult mill engineers for estimates and details of equipment and erection. These engineers advertise in the technical journals, especially in the paper-trade journals, and their names may be found in the directories of many of the larger cities.

It may be said, however, that estimates for the erection and equipping of paper mills, exclusive of water-power rights and wood rights, vary from \$10,000 to \$25,000 per day cord. From \$500 to \$2000 should be added to these figures to cover the additional equipment required for the utilization of by-products, if the wood is cooked at once with caustic soda, and from \$1000 to \$3000 should be added if the resins are first extracted with a volatile solvent and turpentine and rosin made instead of turpentine and resin oils. It is the opinion in this bureau that costs of erecting and equipping approximate the lower rather than the higher figures.

## Potentialities in Lumber Wastes.

*Editor Manufacturers Record:*

I have read with much interest and appreciation Mr. S. Montgomery Smith's letter in the MANUFACTURERS RECORD commenting on my letter of February 20, and thank him for it, as it is illuminating. He, however, has, in my opinion, only touched upon the potentialities of the waste material of our Southern lumber industry.

The \$120,000,000 per annum waste (using Mr. S. M. Smith's estimate) would, if invested in electrical interurban lines at \$12,000 per mile, build 10,000 miles of lines, of which the extreme South has urgent need. This \$120,000,000 would build and equip 120 manufacturing plants such as that near Laine, Miss., which would require 240,000,000 brick, 120,000,000 feet of lumber, 72,000 tons of steel, 1,200,000 tons of cement and \$18,000,000 worth of machinery. It would take 21,000 freight cars to haul the material to the place where it would be needed, and would require an army of 48,000 men to construct these plants. Thus one may see that the utilizing of this waste, using the money in other lines of industry, would stimulate the commerce and manufactures of every section of this country.

The same sum of money, if used in developing the water-power resources of the South, would build from 60 to 100 dams for water-power, which would mean 60 to 100 more new towns and cities and possibly many more, as the water could be utilized to develop electrical power that could be transmitted many miles and used for factories, etc.

The value of this poor despised pine waste as fuel has never been appreciated. Some 30 years ago there stood on the banks of the Escatawpa River in Moss Point a small glass factory built by local capitalists. The sand was brought from Horn Island, just nine miles from this city, and the only fuel that was used was the "slabs," the waste material from the sawmills. The writer has been present in this factory a number of times and has seen the glassblowers at work. Only window glass was made, which had the greenish tinge of bottle glass owing to the presence of oxide of iron in the sand, which could easily be removed by the addition of a little manganese peroxide or arsenious anhydride to the slag. The factory was in operation about six months when it was burned down by an incen-

diary. Now, as it requires approximately 3000 degrees of heat to smelt sand, one may readily see the heat units contained in these slabs and their value for fuel. The magic of modern chemistry is forever finding new and valuable uses of the waste material that we so wantonly throw away. For instance, a Michigan firm is making a superior grade of cattle food from sawdust, and the time is approaching when in our Southern lumber manufacturing plants lumber will only be a by-product; the chemicals from the wood will be the principal products.

During the year of 1911 the United States imported from Canada, Germany, Sweden and Norway 550,808 tons of wood pulp, an increase of 7.6 per cent. over the year of 1910, when the amount imported was 423,721 tons. During the year 4,094,306 cords of pulp wood were used for the manufacture of paper pulp, and of this amount, 1,473,542 cords were spruce, of which 902,407 cords were imported, principally from Canada. The Dominion of Canada furnishes 25 per cent. of the total amount of wood pulp consumed in the United States, and of the 20 different varieties of wood used in the making of pulp, more than 70 per cent. was spruce and hemlock, poplar coming third in the list with 315,717 cords from our own forest and with 45,359 cords imported from abroad. Pine, both white and yellow, is one of the lowest on the list, with only 2.6 per cent., or 105,882 cords, of the total amount used for the making of pulp.

Of the 272 pulp mills that were in the United States in 1910, only 14 were in the Southern States, and distributed as follows: North Carolina four, West Virginia four, Virginia five. And of the 4,094,306 cords of wood used for the making of pulp, North Carolina used 152,261 cords, making 59,292 tons of pulp; Virginia used 87,637 cords of wood, and produced 50,535 tons of pulp; West Virginia used 108,121 cords of wood and made 48,319 tons of pulp. The figures which I have quoted show that a cord of wood will average about 1000 pounds of pulp, though by the ground-wood process the average will be about 2000 pounds. And of the 4,094,306 cords of wood used, only 262,637 were slabs from the mills, which includes balsam fir, poplar, cottonwood, white and yellow pine. Of this sawmill waste the Southern States used only 47,580 cords, distributed as follows: West

Virginia, 38,572 cords; North Carolina, 300 cords, and Virginia, 6008 cords, only a small fraction of the total amount of waste from the Southern mills.

During 1910 Louisiana manufactured and shipped 2,864,665,000 feet of pine lumber; Texas, 1,826,931,000; Mississippi, 1,701,218,000; Alabama, 1,322,950,000; North Carolina, 1,322,471,000; Arkansas 1,173,056,000; Virginia, 962,000,000; Florida, 921,323,000; Georgia, 901,035,000, and South Carolina, 625,842,000—making a total of 12,813,491,000 superficial feet of pine lumber, of which one-tenth of 1 per cent. was sawmill waste, or the vast total of 12,813,401 cords of wood that could be used in the making of paper pulp, besides the chemical by-products. Striking off 25 per cent. of this amount to allow for any possible error in calculation (a very liberal allowance), and we will yet have 9,605,701 cords of pulp-producing wood, from which can be made 4,802,285 tons of pulp. Let us, for the sake of argument, suppose that only 50 per cent. of this material can be utilized, we can still have 2,401,353 tons of pulp from the waste products of our Southern forests.

The new paper and pulp mill near Laine, Miss., will use 90 cords of slabs a day, and will make 45 tons of paper a day, or 13,500 tons a year, allowing 300 working days in the year. It will take 167 such mills to make the paper pulp that is annually used in the United States, and when we remember that the demand for wood pulp is constantly increasing, and that the supply of wood pulp is daily becoming a matter of great concern, we can realize the great opportunities that lie before the lumber-producing sections of the South.

One cannot understand and appreciate the potentialities of the wood industry for the South until he has gone through and mastered the maze of figures which represent it. The total amount of pulp wood that was purchased in the United States in 1909 was 4,094,306 cords, which cost \$33,772,475, or approximately \$7.25 per cord, and of which there was made 2,495,523 tons of wood pulp.

Of the sum total of 4,588,160 tons of material used in the making of paper, 61.6 per cent. was wood pulp, 21.4 per cent. old and waste paper, 7.8 per cent. rags, 6.6 per cent. straw and 2.6 per cent. manila stock. The amount of wood pulp purchased during 1909 was 241,914 tons, costing \$43,861,357, or approximately \$36 per ton; of "ground pulp" there were 432,849 tons, costing \$9,487,508; of the "soda fiber" process there were 154,626 tons, valued at \$6,862,864, and of the "sulphite fiber" process the total of 626,029 tons, valued at \$27,184,726. Of all other chemical fiber there were 8410 tons, worth \$326,259. The importance of the pulp-wood industry will readily be seen when it is known that rags, including cotton, flax, waste and sweepings, furnished only 357,470 tons, at a cost of \$10,721,559, an amount that is less than 25 per cent. of the cost of the wood pulp purchased. Of manila stock, including jute bagging, rope, waste threads, the amount was 117,080 tons, of the value of \$3,560,032. Straw, while showing 303,137 tons, had a value of only \$1,460,282. The total value of all the material used in the manufacture of paper in 1909 was \$165,442,341, an increase of 111.6 per cent. over the year of 1899, when the total was \$70,530,236. The total amount of wood pulp produced during 1909 was 2,495,523 tons, an increase of 1,315,888 tons over 1899, or something like an average of 131,000 tons a year for the decade. Of this amount, 63.5 per cent. was consumed by the mills producing it.

This immense mass of raw material was converted in products which were worth \$232,741,049, an increase of 115.7 per cent. over 1899 and average increase of 11.57 per cent. per annum. In 1909 there were made from paper material 1,391,017 rolls of paper for newspaper printing, valued at \$42,807,064; in sheets for printing 84,537 tons, of the value of \$4,048,496; book paper 575,616 tons, valued at \$42,846,674; coated paper 95,213 tons, worth \$9,413,961; lithograph paper for wood cuts, maps, etc., 6498 tons, costing \$555,352; cover for books 17,578 tons, valued at \$1,982,855; cardboard, tickets, etc., 51,449 tons, of the value of \$3,352,151; fine writing papers 169,125 tons, of the value of \$24,966,102; wrapping paper, boards, tissue paper, building roofing, asbestos and sheeting to the value of \$9,251,368. If we add to this wall-paper and miscellaneous products, there will be \$11,300,683 more.

While the amount of paper products increased between 1899 and 1909 only 94.5 per cent., the value of these products increased 115.7 per cent. In 1899 the value of the raw material used to make paper was \$127,326,162, and in 1909 it was \$267,656,964, an increase of 110.2 per cent., or an average of 11.2 per cent. per annum.

These figures are given only to show the vast importance of the paper industry to this nation, and of which the South has only a small share. For, of the 272 mills in the United States engaged in making wood pulp, only 14, or less than 6 per cent., are in the South. With its vast resources of timber suitable for the making of paper pulp, the South might hold a commanding position in this industry. Should the paper industry increase during the present decade in the same ratio it did during the last decade, this nation will in 1920 be producing products from paper pulp to the value of \$570,215,569, and of this immense amount the South should produce at least 25 per cent., or \$142,503,892, which would mean the addition of \$41,000,000 annually to its material resources, a sum which, if expended in building railroads at \$10,000 per mile, would construct 4100 miles of new railroads, of which the South has most urgent need.

CHAS. E. CHIDSEY.

Pascagoula, Miss.

### Wants Clayworking Industries.

Board of Trade,

Bristol, Va.-Tenn., March 8

*Editor Manufacturers Record:*

In the vicinity of Bristol at this time there is considerable shale which can be utilized for brick-making and the manufacture of other clay products. We are particularly anxious at this time to get the attention of some such industry, in order that development of the shale here may be made within the near future. I trust that you will give this matter your kind attention and bring it to the notice of interested parties through the medium of your valued publication.

LESTER BUSCH, Secretary.

### The Cotton Movement.

In his report for March 7 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 188 days of the present season was 11,884,090 bales, a decrease under the same period last season of 1,599,662 bales. The exports were 6,840,364 bales, a decrease of 1,386,615 bales. The takings were, by Northern spinners, 1,934,244 bales, a decrease of 51,962 bales; by Southern spinners, 2,090,943 bales, an increase of 338,465 bales.



**Birmingham Iron Market.**

[Special Cor. Manufacturers Record.]

Birmingham, Ala., March 10.

An aggregate of some 20,000 tons of foundry grades have been added to local pig-iron order-book requirements since last report, and the market is considered stronger accordingly. This tonnage mentioned consists of the requirement of a leading pipe-manufacturing interest and a fair volume of spot orders. The prices received are about in line with the considerations in the week previous, and indicate a disposition to shade in the majority of cases. For the large requirement entered the price involved is not given out, although it is understood that a basis of \$13.50 per ton at Birmingham for No. 2 foundry, with a differential of 25 cents per ton for the lower grades, was submitted. The small lots sold in the week at \$13.25 to \$13.75 per ton for No. 2 foundry, except for special analysis, for which \$14 per ton was paid. The available tonnage for resale is still an important factor in the market, especially where prompt deliveries are required, and the variance in prices is attributed to such tonnage. For advanced requirements a \$14 Birmingham basis would no doubt obtain in the event of a firm offer. However, very little interest is being manifested in other early deliveries, and at that the purchasers are apparently disposed to limit engagements to minimum quantities. At the same time the aggregate of such engagements gradually increases, and an increase has been noted in shipping instructions against contracts already entered. The movement from furnace yards so far in the month is considerably larger than for the same period in February, which is against practically the same rate of production. Stock figures as of March 1 have not been submitted, and the increase effected cannot be arrived at accurately. A conservative estimate of the stock now on furnace and warrant yards places the aggregate at some 115,000 to 125,000 tons, or an average of approximately 5000 tons for each of the 26 stacks in operation. The estimated aggregate, of course, includes basic and charcoal iron, and the 10 stacks in operation on those grades are to be taken into consideration in arriving at the average stock. The showing is not considered favorable in the face of an inactive market, yet the fact remains that very little tonnage comparatively has been entered for delivery other than in the first quarter of this year, consequently the bulk of the requirement remains to be provided either through new transactions or through the resale of the tonnage already engaged and undelivered. The developments in this connection are being awaited with interest by both the buying and selling interests, and it is hardly expected that the present status of the market will be charged until after the commencement of the second quarter. Of course, more or less inquiry is being received from all quarters of the trade—in some cases tonnage to cover the remainder of the year is submitted—but there is apparently no eagerness in any quarter to close at the figures now obtainable, and the furnace companies are not disposed to force conditions. The stock accumulations are gradually increasing, and at the same time the unfilled orders are being reduced, yet the rate of production will of necessity be reduced within the next few months, while the melt is expected to increase. The general condition of the foundry trade is considered good, and stock accumulations on such yards are no larger than ordinary.

The asking price for charcoal iron is being maintained, and in view of the tonnage already entered the orders being received are quite satisfactory to producers. The same can be said for basic, yet the price for this last has no doubt suffered to a certain extent with the decline for No. 2 foundry.

For the remainder of the first half, and probably through the third quarter, nominal quotations for the several grades are about as follows per gross ton f. o. b. cars at Birmingham furnaces, viz.: No. 1 foundry, \$14 to \$14.50; No. 2 foundry, \$13.25 to \$13.75; No. 3 foundry, \$13 to \$13.50; No. 4 foundry, \$12.75 to \$13; gray forge, \$12.50 to \$12.75; mottled, \$12.50 to \$12.75.

In addition to the tonnage already reported pending, cast-iron pipe manufacturers will soon be asked to bid on some 1500 tons of water pipe for the requirement at Minneapolis, Minn. This in addition to small orders aggregating an attractive tonnage to be placed for requirement in the South. The specifications entered in the week are hardly of the volume expected, and price considerations were lower. The smaller sizes are no doubt being held firm, but concessions have been made for large sizes, and with the asking price for pig-iron quite uncertain, large municipal contracts for early delivery would in all probability bring out interesting figures. In this connection it is noted that a contract has been placed for the erection of the new plant proposed by the National Cast Iron Pipe Co. at Boyles, Ala. The foundry, machine and pattern shops are to be of steel construction, with brick sides and ends, and it is proposed to have the plant ready for operation within six months. With this addition 15 plants for the production of cast-iron pipe and fittings will be located in the Birmingham district, representing an aggregate minimum production of not less than 2000 tons of finished product daily. Class "B," or water pipe, is still quoted at \$24.50 for four-inch and \$22.50 per net ton for six-inch and larger sizes, with an advance of \$1 per ton over those figures asked for gas pipe. These prices are subject to shading for large municipal contracts, but are not revised owing to the absence of trading.

The condition of the finished-material market is practically the same as at the time of last report, with the rate of production unchanged. Specifications for wire products are unusually heavy, with premiums being received for prompt delivery of bars and shapes.

The trading in the old-material market was very heavy in the past week, due to concessions made on accumulations by dealers, and the movement is affected accordingly. A single lot of 2000 tons of light steel has just been sold to consumers, together with an attractive tonnage of wrought and 500 tons of relaying rails. The sales were made at lower figures than those quoted, but it is not likely that additional tonnage is available at the same price. With all quotations being governed largely by the several local conditions, asking prices are quoted nominally at below per gross ton f. o. b. cars here, viz.:

Old iron rails (light), \$15.50 to \$16.  
Old steel axles (light), \$15.50 to \$16.  
Old iron rails, \$15.50 to \$16.  
No. 1 railroad wrought, \$13.50 to \$14.  
No. 2 railroad wrought, \$11 to \$11.50.  
No. 1 country, \$9.50 to \$10.  
No. 2 country, \$8.50 to \$9.  
No. 1 machinery, \$11.50 to \$12.  
No. 1 steel, \$11.50 to \$12.  
Tram car wheels, \$11 to \$11.50.  
Standard car wheels, \$12.50 to \$13.

An advance has been made in the asking price for the best grades of steam coal, and will no doubt be maintained, owing to the shortage that is now being felt. Domestic prices are 25 cents per ton higher than for last season, but stock accumulations are such that the price is not being paid in all cases.

The asking price for foundry coke is being maintained, but furnace coke is weaker. The relighting of an additional battery of 100 Beehive ovens is under consideration, but much depends upon the coal supply. Seventy-two hour coke is quotable at \$3.75 to \$4 per net ton at Birmingham ovens, with 48-hour brands quotable at \$3.25 to \$3.75 per net ton.

**TO DEVELOP 45,000 HORSE-POWER**

**Report States Southern Aluminum Co. Contracted for \$2,000,000 Dam for Aluminum Works.**

The Southern Aluminum Co., Whitney, N. C., is reported to have awarded contract to B. H. Hardaway of Columbus, Ga., for building a \$2,000,000 dam of concrete construction to be located seven miles below the present uncompleted dam and to raise the water of the Yadkin River at least two feet over the original dam. It is reported that this new dam will be about 1000 feet long and at least 150 feet high, developing 45,000 electrical horsepower, which the company plans to utilize in manufacturing aluminum at its big aluminum works heretofore announced, in connection with which it has been stated that \$6,000,000 will be invested for dam, water-power machinery, electrical equipment, aluminum works, industrial city, etc. Mr. Hardaway wires the MANUFACTURERS RECORD: "Not yet ready to advise conclusively about Southern Aluminum Co. contract; will be at early date."

The Southern Aluminum Co.'s previously announced plans for aluminum works included the following: One-story 1200x600-foot building for main structure, with furnace-room having 400,000 square feet of floor space; 350x60-foot powerhouse (40 feet high) for electrical machinery, \$400,000 worth of which was ordered from the General Electric Co. of Schenectady, N. Y., the turbine water-wheels having been ordered from the S. Morgan Smith Company of York, Pa.; electrical machinery, to include seven 5000-kilowatt and two 2500-kilowatt 250-volt direct-current generators, two 1250-kilowatt alternating-current generators, etc.; annual capacity of aluminum to be 25,000 tons. The Southern Aluminum Co. was organized with \$8,000,000 capital. It is controlled by L'Aluminum Francais of Paris, and purchased its Whitney property from the North Carolina Electric & Power Co., the successor of the Whitney Company, which was the original projector of the development of the power of the Yadkin River.

**For Paper Manufacture.**

Mayor Harry D. Reed of Waycross, Ga., writes to the MANUFACTURERS RECORD as follows:

"Mr. Burdett Loomis of Hartford, Conn., president of the Burdett Loomis Company, has arranged to establish a small paper mill in Waycross, utilizing some of the buildings and machinery of the old South Atlantic Car & Manufacturing Co. The paper machinery has been purchased and is now being shipped from the North. It is expected that the mill will be in operation within the next three or four months. Vegetable pulp will be used, and will be obtained principally from cotton and sugar-cane stalks, and from the stalks of the wild banana, which can be grown profusely here."

**GOOD ROADS****WEEK'S HIGHWAY RECORD.****Progress in Southern Road and Street Improvement.**

[Further details of highway undertakings and bond issues mentioned below are given under the headings Construction Department and New Securities, published elsewhere in this issue.]

**Bonds Voted.**

Lincolnton, N. C.—Lincoln county voted \$200,000 bonds for road construction.

Lovington, Va.—Magisterial District of Nelson county voted \$35,000 bonds to construct macadam road, 10 miles.

Magnolia, Miss.—Pike County Supervisors authorized \$200,000 bonds for road construction in fourth district.

Orange, Tex.—City voted \$20,000 bonds for street improvements.

Shreveport, La.—City voted \$101,500 bonds to connect paved streets with parish gravel roads and gravel suburban streets, etc.

Tuscaloosa, Ala.—City authorized \$90,000 bonds to pave Greensboro avenue and Broad street.

**Bonds to Be Voted.**

Centerville, Tenn.—Hickman county votes March 29 on \$200,000 bonds for road construction.

Dublin, Ga.—City will vote on issuance of \$30,000 bonds for street improvements, curbing, etc.

Lexington, N. C.—Davidson county votes April 22 on \$300,000 bonds to construct roads.

Walnut Springs, Tex.—City votes April 15 on \$10,000 bonds for street improvements.

Wilson, N. C.—City votes April 15 on \$80,000 bonds to improve streets.

**Contracts Awarded.**

Abilene, Tex.—City awarded contract for 75,000 square yards asphalt macadam street paving.

Baltimore, Md.—State Roads Commission awarded contracts for road construction in various counties amounting to \$234,478.02.

Greenville, Tex.—Hunt county awarded contract to build one and one-quarter miles macadamized road.

Louisville, Ky.—City awarded contract for vitrified block street paving aggregating \$83,000.

Marianna, Ark.—City awarded contract for 2000 yards of street improvements.

Opelika, Ala.—City awarded contract for 40,000 to 50,000 square yards of pavement and 3000 cubic yards excavation.

**Contracts to Be Awarded.**

Arcadia, Fla.—City will expend \$40,000 for construction of brick pavements.

Baltimore, Md.—State Roads Commission receives bids until March 27 for building 11 sections of State highway in various counties, aggregating about 21.55 miles long.

Beaumont, Tex.—City will construct about 755½ yards paving; also 490 linear feet concrete curbing.

Durant, Okla.—City will expend \$42,000 for construction of 13 blocks asphaltic concrete pavement, with curb and gutter; paving 36 feet wide.

Frederick, Md.—City will construct about 5500 square yards paving, 1000 linear feet curbing, etc.

Tampa, Fla.—City invites bids for laying 200,000 square yards brick pavement and 10 linear miles granite curb.

The third annual session of the National Drainage Congress will be held at St. Louis, Mo., April 10-12.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### GADSDEN TO TUSCALOOSA.

**New Company to Build Interurban Railway and Operate Steamers and Barges.**

The Birmingham & Tuscaloosa Railway & Utilities Co. has been incorporated in Alabama to build an interurban electric railway about 115 miles long from Gadsden to Tuscaloosa via Attalla, Ashville, Birmingham and Bessemer; to operate the belt line at Tuscaloosa, and also to operate steamers and barges between Tuscaloosa, Mobile and New Orleans. It is further proposed to erect electric and gas plants in Etowah, St. Clair, Jefferson and Tuscaloosa counties at various points, and the railroad may eventually be extended from Gadsden to Chattanooga.

Morris Bros., bankers, 1421 Chestnut street, Philadelphia, Pa., who are interested in the Birmingham, Ensley & Bessemer Electric Railway, which is now partly in operation and being extended, are also connected with this new enterprise, the local incorporators of which are C. R. Carter, C. A. Gannon and W. D. Adams. The initial capital stock of the new company is nominal, being only \$3500, but it is said that this may be increased to \$1,000,000 when necessary. Morris Bros. state that the plans are not yet in shape for them to make announcement concerning them.

The Birmingham & Gulf Railway & Navigation Co.'s belt line at Tuscaloosa, otherwise called the Tuscaloosa Belt Line, is included in the scheme of the new company. Morris Bros. have been interested in that for some time, and improvements to it are now in progress. George I. Brown of Birmingham, who represents the Morris interests as general manager, is quoted as saying that the new line will be wholly free from connection with any other railroad, and he took occasion to deny a particular report that the Illinois Central Railroad had something to do with it. Papers have been filed at Tuscaloosa to condemn right of way for part of the route between there and Birmingham. Construction is now proceeding on the Holt division of the Tuscaloosa belt line. Mr. Brown is further reported saying that the engineers have found a low grade route from Tuscaloosa to Birmingham, and that the curves are reduced to the minimum. Washington Moody, attorney, at Tuscaloosa, filed the condemnation papers. It is intended to rush work on the local line in Tuscaloosa and the gas and power plants there. This construction is being supervised by Mr. Brown.

It will be remembered that the idea of such a line as is proposed by this recent incorporation is not new. At the time the Birmingham, Ensley & Bessemer Electric Railway plans were announced several years ago they included a proposition by J. M. Dewberry of Birmingham, the promoter, to build all the way from Gadsden to Tuscaloosa and to conduct a water-transportation business from and to the latter place. It was then known as the "Tidewater" plan. Finally, Morris Bros. became interested, and it was decided to build the electric railway from East Lake through Birmingham to Ensley and Bessemer, leaving the through line to be taken care of later, if at all. It now appears that it is to be constructed.

### New Equipment, Rails, Etc.

Norfolk & Western Railway has ordered from the Carnegie Steel Co. 22,000

pounds of plates, shapes and bars to be used in building cars at its Roanoke shops, thus: 1000 all-steel hopper cars, 57½ tons capacity, and 1000 all-steel gondola cars of 50 tons capacity. These cars are to have rolled-steel wheels.

Chesapeake & Ohio Railway has ordered eight Pacific type locomotives from the Baldwin Works, Philadelphia.

Kansas City Southern Railroad is reported to have ordered four six-wheel switching locomotives from the American Locomotive Co., New York.

Pennsylvania Railroad, according to a report in the steel market, will purchase 144 locomotives in addition to those building at its shops. It is also expected to buy about 200 passenger cars.

Fredericksburg, San Antonio & Northern Railroad has ordered 2500 tons of steel rails to be delivered by April 1.

Fayette Traction Co., Fayetteville, W. Va., would like to have prices on second-hand 60 to 70-pound rails for about four and one-half miles of line; also on two closed trolley cars of 30 to 40 passengers capacity. Address R. H. Dickinson, Jr.

Pennsylvania Railroad, according to a late report, has ordered 100 all-steel passenger coaches for suburban service from the American Car & Foundry Co., to be built at Berwick, Pa.

### Savannah & Southern Extension.

The Savannah & Southern Railway Co., which operates a line 13 miles long from Norden, on the Seaboard Air Line Railway, to Willie, Ga., and has altogether 19 miles of track, has engineers in the field surveying for an extension from Willie to Glennville, Ga., 16 miles. It is also contemplated to extend from Speirs, on the Savannah division via Clyde, Ga., to Savannah, Clyde being the county-seat of Bryan county. This line from Savannah to Glennville would traverse an undeveloped country where lands, it is said, are yet cheap. The general offices of the road are at Letford, Ga. Stewart Starr has recently been appointed general manager, having charge of operation and traffic. Standard forms and customs are being adopted. G. T. Tuten is appointed general claim agent. W. G. Tuten is president of the company.

### Public Utilities Merged.

The Federal Light & Traction Co., 60 Broadway, New York, advises that the Central Arkansas Railway & Light Corporation, which was recently chartered in Virginia, has acquired all of the stocks and bonds of the operating companies in Hot Springs, Ark. All of the stock of the Central Arkansas Railway & Light Corporation is owned by the Federal, but its bonds are outstanding to an amount of \$2,000,000, and there is also outstanding 7 per cent. preferred stock amounting to \$1,200,000.

The names of the companies are thus: Central Arkansas Railway & Light Corporation, Hot Springs Street Railway Co., Consumers' Gas Co., Citizens' Electric Co. and Hot Springs Water Co. The various properties were acquired as of March 1.

### Lectures on Railroad Operation.

To further improve the operation of its lines the Central of Georgia Railway Co. has established a special lecture car equipped with a stereopticon to illustrate the remarks of speakers, with moving pictures and other views pertaining to railroad service. Lectures have been given at all important points, including terminals, and more than 1000 men in train and agency work have attended them, displaying close attention and general inter-

est. One lecture was on fuel economy and the firing of locomotives, a second on train rules, and a third on loss and damage to freight. The party accompanying the car consisted of E. H. Daniel, transportation inspector; A. D. Prendergast, road foreman of engines, and D. C. Boy, assistant chief of the educational bureau, who is in charge of the lectures.

### Southern Extends Double Track.

President W. W. Finley of the Southern Railway Co. has authorized the construction of a second track on the main line between Armour and Cross Keys, Ga., which is now a single-track gauntlet connecting two stretches of double track between Atlanta and Gainesville, Ga. In making this section also double track the grades will be reduced and much of the curvature will be eliminated. The improvement will materially facilitate the operation of trains in and out of Atlanta. Work will begin as soon as practicable and will be pushed.

### Superintendent of Construction.

President W. G. Seaver of the Mississippi Northwestern Railroad Co., Biloxi, Miss., announces the appointment of W. S. Carter as superintendent of construction, also with headquarters at Biloxi. He will have charge of all the construction and maintenance of way for the company, which plans the construction of a line from Biloxi northwest to Vicksburg and other points.

### Coast Line Sells Bonds.

The Atlantic Coast Line has sold to Potter, Choate & Prentice of New York \$3,500,000 of its unified 4 per cent. bonds, which mature in 1950. It is understood that the proceeds of these securities will be devoted to improvement and construction work of the company from time to time as the growth of traffic compels enlargement of facilities.

### New Traction Company for Oklahoma.

The Interstate Railroad & Traction Co. has been chartered at Blackwell, Okla.; capital stock \$50,000; incorporators, O. L. Brown, Arkansas City, Kans.; L. A. Brown and R. L. Self, Louisville, Ky.; C. B. Harrold and J. M. Van Winkle, Ponca City, Okla.

### S. M. Swenson a Railroad Officer.

S. M. Swenson of Freeport, Tex., according to advices from there, has been elected secretary and treasurer of the Houston & Brazos Valley Railway Co. to succeed D. J. Kerr, resigned. Freeport will be a new terminus of the road.

### To Enlarge Yarn Mill.

The Conneross Yarn Mill, Anderson, S. C., has contracted for a two-story 100x50-foot addition and a two-story 50x25-foot picker-room, of mill construction, costing about \$15,000. The company has also ordered additional machinery costing about \$15,000, and this new equipment will increase its annual capacity to 1000 bales of cleaned cotton-mill waste, besides 15,000 pounds daily of manufactured product.

### To Rebuild Woolen Mill.

The Webster (W. Va.) Woolen Mill Co. will rebuild its recently burned plant. It will expend from \$15,000 to \$20,000 for brick buildings and about \$30,000 for machinery, the latter to include 1440 spindles and 20 looms for a daily capacity of 240 pairs of blankets. About 50 operatives will be employed.

## TEXTILES

### Lancaster Cotton Mills.

Leroy Springs, president of the Lancaster (S. C.) Cotton Mills, writes to the MANUFACTURERS RECORD as follows:

"The addition to our Lancaster plant is well under way, and consists principally of a weave shed, 235x857 feet, which will accommodate 3000 40-inch new Draper looms. The present buildings are to be used entirely for preparatory machinery, enough of this being added to supply the additional looms. All spinning frames will be driven with individual General Electric motors. A 2500-kilowatt Westinghouse turbine will supplement the present compound Corliss direct-connected engine, the current from which will be used when necessary. The mill obtains secondary power from the Southern Power Co. The entire plant will be modern in every respect when completed, not only as regards the addition, but the original buildings, as the equipment will be uniform throughout. Practically everything has been bought which will be required for equipment. The building itself is well under way, and its completion is expected within the next few months. The additional buildings will represent an outlay of about \$200,000, and the additional equipment, including buildings, will aggregate above \$1,000,000. When completed the mill will have about 140,000 spindles and will employ about 1700 people. J. E. Sirrine, Greenville, S. C., is the architect and engineer."

### Bladenboro Mill Completed.

The Bladenboro (N. C.) Cotton Mills writes to the MANUFACTURERS RECORD as follows:

"Our plant has just been completed. Brick structure main building 419 feet long and 112 feet wide. The plant is located on the Seaboard Air Line Railway, the mill village being incorporated under the name of West Bladenboro. R. C. Biberstein of Charlotte was the architect and L. A. States of Gastonia was the mechanical and consulting engineer. All textile machinery was purchased from the Howard & Bullough American Machine Co., Pawtucket, R. I., with exception of winders, nine in number, which were purchased from the Foster Winder Co., Westfield, Mass. Total number of ring spindles, 8500. Estimate equipment at \$175,000. Steam plant, 700-horsepower cross compound condensing engine, furnished by Providence (R. I.) Engineering Works. Daily capacity will vary from 6500 to 9000 pounds on different numbers of yarns from 8-1s to 14-1s hosiery twist. Number of operators required, 165 to 175. H. C. Bridger, president; C. O. Bridger, secretary and treasurer; J. L. Bridger, general manager."

### A \$100,000 Hosiery Mill.

The Blanche Hosiery Mills Co., Chapel Hill, N. C., has been incorporated, with a capital stock of \$100,000, by W. E. Lindsey, Blanch G. Lindsey and W. S. Robertson.

### Textile Notes.

J. F. Lee, Royston, Ga., is interested in a plan to build a cotton mill.

The Eureka Manufacturing Co., Lincoln, N. C., will install a dyeing plant for yarns.

R. J. Stough of Cornelius, N. C., plans the organization of a company to build a cotton mill.

The Roswell (Ga.) Manufacturing Co. will add 2000 spindles, and has ordered this machinery.

A. L. Patterson and J. S. Efrid of Albe-



marle, N. C., will build knitting mill at China Grove, N. C.

The Fulton Cotton Mill Co., Athens, Ala., will add roving machinery, warpers, looms, etc., and has awarded contract for this machinery.

Beecroft & Hatton, Birmingham, Ala., are reported as to establish a knitting mill with a daily capacity of 1200 pairs of hose at Leeds, Ala.

J. W. Martin, Nashville, Tenn., will establish a hosiery mill at Lawrenceburg, Tenn. He has leased a building and later will erect a 160x40-foot brick structure.

The Whitehead Hosiery Mills Co., Burlington, N. C., plans to erect an additional mill, the building to be of brick construction and three or four stories high. It will increase capital to \$100,000.

H. A. Cook of the Charlotte (N. C.) Bagging Co. proposes the organization of a company to build a jute cotton bagging mill at Savannah, Ga. He contemplates an investment of \$25,000 for machinery, \$10,000 for working capital and \$7500 for location and building.

## LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

### Southern Building in February.

The following brief summary of Southern and Southwestern building operations during February, as compiled from reports received from representative cities in these sections, indicate the prevailing degree of activity along this line of industry: In Norfolk a total of 84 permits was issued, which is a larger number than was ever issued during the same month in any year. A total of 35 permits was issued in Winston-Salem during the month, representing a cost of \$31,855. Permits were issued in Greenville, S. C., to the number of 43, representing a cost of construction of \$23,882. In Birmingham a total of 281 permits was issued during the month, representing a cost of construction of \$1,367,333. As compared with February, 1912, these figures show a decrease of 79 in the number of permits issued, but an increase of \$1,080,827 in the cost of construction. Operations in Atlanta and Savannah were active, but figures from these cities are not available. A total of 116 permits was issued in Jacksonville during February, representing a cost of construction of \$876,185. As compared with January these figures show an increase of 23 in the number of permits and \$722,500 in the cost of construction. The cost of construction for which permits were issued in Tampa during February was estimated at \$164,170 for new improvements and \$12,070 for alterations and repairs. These figures show an increase of about \$50,000 as compared with February, 1912. Permits were issued in Pensacola during the month for construction estimated to cost \$24,582. In Nashville a total of 29 permits was issued, representing a cost of construction of \$155,760. As compared with February, 1912, these figures show a decrease of 14 in the number of permits, but an increase of \$84,727 in the cost of construction. The cost of improvements for which permits were issued in Chattanooga during February was estimated at \$134,855, as compared with \$108,725 for January. During January and February permits were issued in Lake Charles for construction estimated to cost about \$50,000. Permits were issued in Austin for February to a value of \$32,978, and

in Denison to the value of \$40,690. Approximately 200 permits were issued in Dallas during the month, representing a cost of construction of \$434,460. These figures show an increase of 163 in the number of permits as compared with February, 1912, and \$326,575 in the cost of construction. Permits were issued in Tulsa for construction estimated to cost \$66,950. A total of 901 permits was issued in Little Rock for 1912, representing a cost of construction of \$1,558,436. Figures for February of this year are not available. In Baltimore the cost of construction for which permits were issued during February, including alterations and repairs, was estimated at \$656,234.

### Big Lumber Mill.

The Bayou Rapides Lumber Co., Alexandria, La., has increased its capital stock from \$75,000 to \$125,000, and will build a mill for a 10-hour capacity of 100,000 feet of long-leaf pine lumber. It has awarded contract to the Filer & Stowell Company of Milwaukee, and J. G. Gingras of Alexandria is the construction engineer. About 8000 acres of timber land will be cut.

### KENTUCKY OIL AND GAS FIELDS.

#### Investigations by United States Geological Survey.

A report on "The Menifee Gas Field and the Ragland Oil Field, Kentucky," by M. J. Munn, has just been issued by the United States Geological Survey as Bulletin 531-A. The geologic investigations on which this report is based were made in co-operation with the Geological Survey of Kentucky in October, 1909, and in 1911. These investigations were part of a general reconnaissance examination of the oil and gas fields of the southern Appalachian region, embracing Kentucky, Tennessee and Alabama, a report on which is in course of preparation. The two fields discussed in Bulletin 531-A are in the northeastern part of Kentucky. The Menifee gas field is situated in the southwestern part of Powell county. The Ragland field is in the extreme southeastern part of Bath county and the adjacent portion of Rowan county.

The principal object of this reconnaissance work was to determine approximately the structure or dip of the "Corniferous" limestone, which is the oil and gas bearing "sand" in these fields, and to see if these fields have any structural relationship not only to each other, but also to the Campton oil field of Wolfe county, which had been described in a previous report (Bulletin 471-A-1). The results show that the three pools closely resemble one another in structural arrangement, and the deductions to be made therefrom should prove of much value to oil and gas men interested in the development of other pools in this general region.

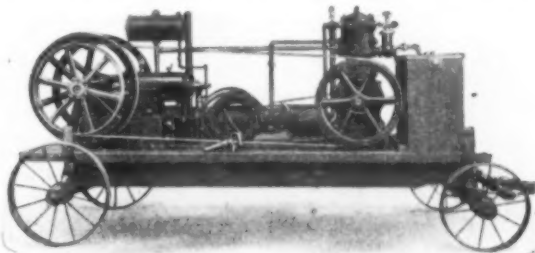
In his report Mr. Munn says, in part, that "the syncline which crosses the triangle between the Menifee gas field and the Irvine and Ragland oil fields is probably unproductive, the 'Corniferous' limestone being saturated with water. The Irvine and Campton fields are probably on the same anticline, which may prove to be the westward extension of a fairly definite anticline observed at a number of places in Morgan county."

It is interesting to note that months after the manuscript for this report was prepared a well was completed at Cannel City, Morgan county, which is reported to have started flowing at about 600 barrels a day and which is probably on the anticline observed in Morgan county by the geologist who made the report.

## MECHANICAL

### Gardner-Rix Portable Air Compressor

One of the convenient and useful forms of air compressor outfits as manufactured by the Gardner Governor Co., Station L, Quincy, Ill., is the Gardner-Rix portable air compressor, shown in the accompanying illustration. This form of compressor is extensively used by contractors and others, particularly on construction work where compressed air is utilized for operating pneumatic drills, riveters, air hoists, etc. The importance of such work is that it should be continuous without interrup-



GARDNER-RIX PORTABLE AIR COMPRESSOR.

tion, thus making a reliable and dependable compressor essential. The Gardner-Rix compressor combines high speed, light weight and substantial construction, giving high efficiency in volume of compressed air. The illustration shows a pneumatic outfit complete within itself. The compressor, gasoline engine and water-cooling tank are arranged on an easy running truck, so that they can be moved to the most convenient location for the work intended.

A booklet on the subject of compressed air and its commercial uses has recently been issued by the Gardner company, which, together with descriptive catalogues of its various lines of manufacture, will be sent to interested persons on request.

### Motor Truck in the Mountains.

While it is well known that the motor car and motor truck are rapidly displacing the horse on the streets of our Southern cities, the city of Asheville, in the

world," the construction of which is so unique as to attract wide attention. It is 400x80 feet, and is built of rough stones gathered upon the mountain sides for several miles around. These stones or mountain boulders are hauled on drags, sleds and wagons to the automobile road, and there loaded on a motor train of 15 wagons and transported to the Inn, three miles below. This train is shown in the accompanying illustration. The wagons are of Birdsell manufacture, and adapted to the work by modifications in the tongue and steering arrangements by Mr. Seely.

The truck, a three-ton Packard manufactured by the Packard Motor Car Co.,

Detroit, does the work of 15 pairs of horses or mules, and has been in this service for the past five months. The truck is on the move regularly from 7 A. M. to 6 P. M., and less than five hours have been lost in daytime during this entire period for making repairs. The wagons are manufactured by the Birdsell Manufacturing Co., South Bend, Ind.

The stones picked up from the mountain side are tied into the outer face of the walls of the Inn in beds of cement not visible to the eye. The weights of these stones vary from a few pounds to as much as 6000 pounds, the latter being used for lintels and door jambs. No mark of hammer mars the natural face of the stones, and many of them bear the mosses and lichens as they came from their mountain beds. The effect is strikingly rugged and picturesque. Big forces of men are working day and night, and the Grove Park Inn is to be opened on July 1, 1913.



MOTOR TRAIN IN NORTH CAROLINA MOUNTAINS.

mountains of Western North Carolina, is not only displacing horses by wholesale with motor trucks, there being now a large number of motor trucks there, but the time-honored mule is even being replaced in the efficient work of hauling on the mountain roads. Fred L. Seely, who has charge of the construction work of Grove Park Inn, on the slopes of Sunset Mountain at Asheville, has adopted a Packard motor truck to do the hauling for that building. E. W. Grove, the Asheville-St. Louis millionaire, is building what he has stated is to be "not the largest, but the finest tourist hotel in the

### Concrete Construction for Modern Cotton-Handling Plants.

The modern cotton warehouse is a reinforced concrete building divided into rooms or compartments by solid concrete walls, each compartment being equipped with sprinklers and automatic fire doors. By this arrangement, fire in one compartment may be confined to the locality in which it originates.

The accompanying illustrations show the immense warehousing facilities of the Memphis Terminal Corporation at Memphis, Tenn., to which large additions have

recently been made. These additions, covering 16 acres of ground, include 28 warehouses, one compress building 900 feet long and 160 feet wide, and four "free on board" buildings with about 300,000 square feet of floor area and two large boiler-rooms. These buildings have been constructed under the method developed by the Unit Construction Co. of St. Louis for reinforced concrete construction.

The "Unit" system consists in casting the various parts of the building into forms which are placed on the ground in a locality near the building site, as shown in one of the illustrations. After the concrete has hardened sufficiently these

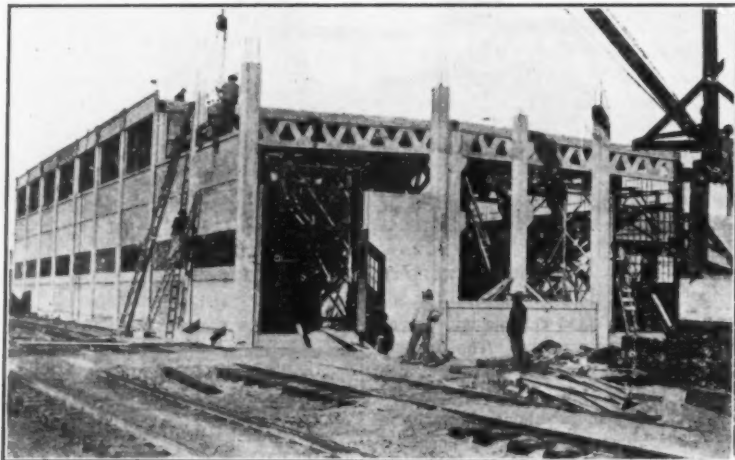
houses are separated with solid walls of concrete 12 inches thick, and the entire plant is equipped with automatic sprinklers.

The plant of the Memphis Terminal Corporation is said to be the largest cotton-handling plant in the world, and its size and efficiency are a tribute not only to the magnitude of the cotton interests in Memphis, but also to the foresight and energy of the men who laid out this plant along scientific lines and have equipped it with trolley handling systems and other apparatus for the rapid and economical moving of cotton.

Another recent important work of the

Compress & Warehouse Co. at Galveston, Tex. This plant is located with two switch tracks on each side of the property, and has been laid out for the most economical and expeditious handling of cotton. The bales will be conveyed by an overhead trolley system operated by gravity. The plant comprises 10 warehouses of 160x80 feet each; unloading shed 1120x

and replaced. Elastic heat insulating supports inserted between the inner and outer glass walls of the filler steady and strengthen it by preventing vibration. These bottles are made with extra leather carrying cases and special combination case with two or more bottles and with luncheon outfits for two, four or six persons, which are useful for outdoor parties,

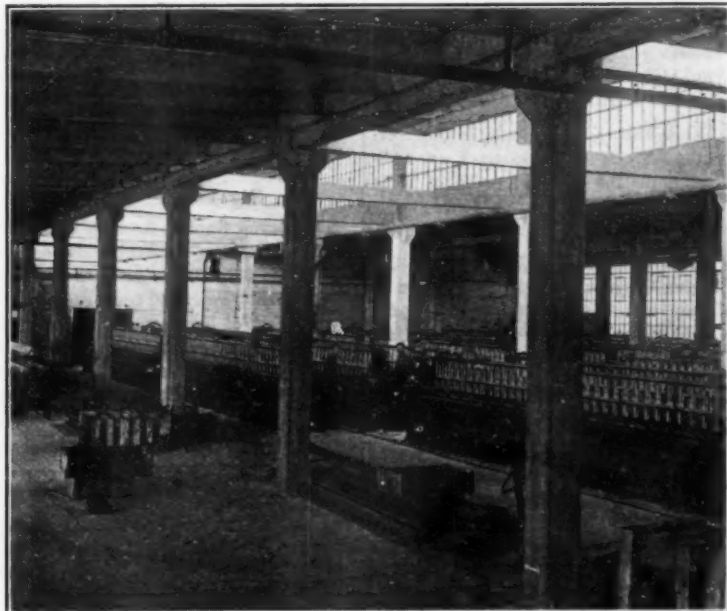


POWER-HOUSE OF POSTEX COTTON MILLS WITH CONCRETE TRUSS BEAMS.

parts, or "Units," are lifted from the forms and placed in storage until wanted. This process is carried on repeatedly, so that many "Units" may be cast from each form. This effects a large saving in lumber and also insures the readiness of the construction parts when required, and they are erected by means of derricks, just as structural steel is placed.

In the buildings shown in the illustration the walls, columns and roofs are

Unit Construction Co. comprises the buildings for the Postex Cotton Mills at Post, Tex., owned by C. W. Post of Battle Creek, Mich. It is expected that the mills will be in operation in about 60 days. The plant is located in the midst of the cotton fields, and draws on the local supply for its raw material, the cotton being ginned and blown into the lint bins, from which it is fed directly to the mills. The six buildings of this plant



INTERIOR OF POSTEX COTTON MILL WITH CONCRETE BEAMS AND PILLARS.

50 feet; compress building 1120x40 feet, and an outbound shed 237x157 feet.

#### "Icy-Hot" Vacuum Bottles.

A vacuum bottle that is designed to keep its contents hot for 24 hours and cold for three days is manufactured by the Icy-Hot Bottle Co., 122 W. Second avenue, Cincinnati. This company describes and illustrates these vacuum bottles in catalogue No. 13, giving consumers'

automobile touring etc. The company also makes an "Icy-Hot" jar for solid food and an "Icy-Hot" carafe for household and hotel use in which ice cold water is placed, thus doing away with ice in water glasses and water pitchers. It is in use by workmen, hunters, yachtsmen, motorists, engineers, soldiers and others, and is convenient for use in the sick room. The use of the vacuum bottle has previously been restricted on account of its



MEMPHIS TERMINAL CORPORATION'S COTTON-HANDLING PLANT, MEMPHIS, TENN.

constructed entirely of reinforced concrete; the doors are standard fire doors, and the skylights and sash in the monitors are glazed wireglass. The window framing consists of "Detroit Fenestra" construction, manufactured by the Detroit Steel Products Co., Detroit, Mich., using "Mississippi" wireglass manufactured by the Mississippi Wireglass Co. of St. Louis and 220 Fifth avenue, New York. The various compartments in the ware-

were constructed according to the "Unit" system. One of the smaller illustrations shows the interior of one of the buildings with machinery in place. The other small illustration shows the large reinforced concrete trusses in place, having a span of 42 feet.

A third plant which is now under construction by the Unit Construction Co. comprises the cotton warehouses and compress buildings for the Galveston Cotton

prices for pint, quart and half-gallon sizes. The bottle or jar consists of a glass bottle within a glass bottle, with a vacuum formed between them and mounted in a metal casing with steel top drinking cup, which holds the cork in place. To protect against breakage, the bottle or "filler" is held in the casing by a rubber cushion at the neck and a spring at the bottom. Pressure on a spring in the bottom opens the case, allowing the filler to be removed

high cost, but now they are made so that they are well within the reach of all, as indicated by the orders which this company has filled for general stores connected with mines, lumber companies, etc.

The Chamber of Commerce of Victoria, Tex., is circulating an attractively illustrated booklet directing attention to the opportunities of the city and its vicinity.



# Construction Department

## TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "It is reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

### HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

### WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription to the Daily Bulletin is included for the contract period.

### BRIDGES, CULVERTS, VIADUCTS

Ark., Fort Smith.—Sebastian Bridge Co. has plans to construct bridge across Arkansas River, connecting Fort Smith and Sequoyah county, Oklahoma.

Ga., Augusta.—City will construct steel bridge span on 13th St. and masonry pier for bridge; Nisbet Wingfield, chief engineer, 747 Broad St., Augusta; bids received by Canal and River Commission until March 26. (See "Machinery Wanted.")

Ga., Newnan.—Central of Georgia Railway, C. K. Lawrence, chief engineer, Savannah, Ga., contemplates constructing steel viaduct across tracks at LAGRANGE ST.; length about 300 feet; cost \$12,000 to \$13,000, of which city will pay about \$3000, county \$2,000 and railroad company the balance.

La., Lafayette.—City Council authorized street committee to secure estimates for construction of three concrete bridges. Address The Mayor.

Md., Baltimore.—Vang Construction Co., Cumberland, Md., has contract, it is reported, to construct viaduct across Baltimore & Ohio Railroad tracks at Lee St.; 10,000 cubic yards concrete and 18,000 cubic yards excavation; estimated cost \$150,000; structure to be built by railroad under supervision of H. K. McCay, City Engineer. (Recently mentioned.)

Md., Baltimore.—State Roads Commission, 534 N. Howard St., awarded contract to Arthur & Boyle at \$2423.25 to construct two 25-foot span reinforced concrete bridges over Emmitsburg Pike, Frederick county; Luten

Bridge Co. of York, Pa., at \$21,010 to construct two 30-foot span reinforced concrete bridges over Winters Run, Harford county. (Call for bids lately noted.)

Md., Cambridge.—Cambridge & Chesapeake Railroad Co., E. A. Jones, chairman, will construct several short bridges.

Md., Towson.—William G. Sucro, roads engineer, recommends construction of 32 concrete bridges in Baltimore county.

Mo., St. Louis.—Board of Public Improvements will proceed with removal of present 12th St. bridge and construction of proposed reinforced structure estimated to cost \$355,000. L. R. Bowen, bridge engineer, states bridge will be 75 feet wide and 2000 feet long; foundations mainly on concrete piles (molded and driven type); structure entirely of concrete, with exception of one steel girder span protected with concrete; bids received March 21 for removal of present bridge and construction of foundations and concrete work. (See "Machinery Wanted.")

N. C., Elkin.—Surry and Yadkin County Commissioners have authority from Legislature to construct steel bridge across Yadkin River at Elkin; estimated cost, \$4000; County Commissioners to have joint meeting March 18.

S. C., Yorkville.—York county is asking bids, to be received by T. W. Boyd, County Supervisor, until March 20, for material for four steel bridges; W. W. Miller County Engineer, Rock Hill, S. C. (See "Machinery Wanted.")

Tenn., Clarksville.—Montgomery county is considering \$200,000 bond issue to construct bridge across Cumberland River. Address County Commissioners.

Tenn., Kingsport.—Sullivan County Commissioners will construct bridge across Holston River near Kingsport; bids received at

Georgia.—Appalachian Apple Orchards, Louis B. Magid, president, Candler Bldg., Atlanta, Ga., contemplates establishment of small cannery for fruit, tomatoes, etc. (See "Machinery Wanted.")

La., Norwood.—Norwood Canning & Manufacturing Co., L. W. Blount, manager, will be incorporated with \$25,000 capital stock (not \$15,000 as recently stated); will erect 50x100-foot building; ordinary construction; cost \$1500 to \$2000; company will purchase material and erect building; portion of machinery purchased. (See "Machinery Wanted.")

Miss., Meridian.—Frazier Packing Co. of Elwood, Ind., is considering establishment of plant to manufacture tomato products.

Okl., Muskogee.—J. A. Markham is promoting erection of cannery.

Tex., Texarkana.—Armour & Co. (main office, Chicago, Ill.) will erect packing plant; plans and specifications prepared and will be submitted to contractors; W. H. Faurote, local agent.

Va., Roanoke.—Roanoke Press, Preserving & Canning Co., Box 382, Roanoke, organized to establish proposed press, preserving and canning plants in South; main office, Roanoke; will build first factory in Roanoke county, this to produce canned fruit, preserves and jellies, canned fruits and vegetables; second factory also to be built in Roanoke county for production of elder vinegar in cans and bottles; Phillip Hamilton, 83 Jefferson St., Paterson, N. J., president and secretary; Fred W. Durr, vice-president and treasurer; John H. Wright, attorney.

Va., Tazewell.—Tazewell Packing Co. (J. D. Perry and others) opens bids shortly to erect packing plant; mill construction; cost of machinery \$9000 to \$10,000. (Recently noted.)

Ky., Ashland.—Southeast Coal Co. incorporated by John F. Hager, K. M. Fitzgerald and L. S. Wilson.

Ky., Harlan.—Pineville Coal Mining Co. (recently noted incorporated at Pineville, Ky., with \$50,000 capital stock) organized with R. W. Creech, president; W. L. Stallworth, vice-president; R. E. Lawson, secretary-treasurer; opens bids August 1 for machinery. (See "Machinery Wanted.")

Ky., Louisville.—Hazard Coal Co., capital stock \$25,000, incorporated by Robert Wedekind, M. F. Evans and W. G. Polk.

Ky., Pineville.—Lick Branch Coal Co. organized with John W. Williams president; leased Harlan Coal Mining Co.'s mining plant at Croxton and will operate; about 1000 acres coal lands are included in transaction; mining plant has daily capacity of 3000 tons.

Ky., Pineville.—Harlan Coal Manufacturing Co. is considering, it is reported, construction of mining plant between Croxton and Agnes, Ky., and further development of 9000-acre tract.

Ky., Whitesburg.—Maxwell & Litts have purchased 2000 acres coal land on upper Rockhouse Creek.

Md., Lonaconing.—Robert Uzett will reopen coal mines.

Mo., Macon.—George E. Smith Coal Mining Co., capital stock \$5200, incorporated by Geo. E. Smith, Andrew H. Clark, Roy D. Conley and others.

Okl., Blocker.—Belt Coal Co., capital stock \$25,000, incorporated by James L. Brazell of Hartshorn, Okla.; Al Belt of Fort Smith, Ark., and R. P. Harris of Fort Smith, Ark.

Tex., Alton.—Consumers' Lignite Co., Dallas, Tex., organized with D. C. Earnest president, J. D. Bright secretary, G. M. Hodges manager; will develop 3000 acres of land; daily capacity, 1000 to 1200 tons of coal; proposals may be addressed to Mr. Earnest. (Recently noted at Timpson, Tex., as having secured leases on several acres of land.)

Tex., Dallas.—McKay Lignite Mining Co., Sumpter Bldg. (recently noted incorporated, \$75,000 capital stock), will continue development of 100 acres; daily capacity, 150 tons; J. C. McKay, president and manager; F. B. McKay, vice-president; H. J. McKay, secretary-treasurer.

Va., Tazewell.—W. R. Dennis, Grundy, Va. (recently noted as purchasing several hundred acres coal and timber land in Buchanan county), states this land adjoins other property owned by him, making about 5000 acres; corner of 5000 acres also adjoins larger tract of 10,000 acres, mainly owned by Mr. Dennis, who has considered development of coal, but holds property for sale; lands are on N. & W. R. R. in Buchanan and McDowell counties.

W. Va., Clarksburg.—Fifty-Foot Fuel Co., capital stock \$25,000, incorporated by William G. Welmer, C. B. Maple, Rock Bell and others.

W. Va., Grafton.—Triona Coal & Coke Co. incorporated by Charles W. Scrimshaw, Lewis C. Wassmer, Thomas J. Lefton and L. A. Donelaw, all of Cleveland, O.

W. Va., Wheeling.—Richland Block Coal Co., capital stock \$100,000, incorporated by J. C. McKinley, H. B. Lockwood, L. W. Brown and others.

### CONCRETE AND CEMENT PLANTS

Md., Oakland.—Concrete Blocks, etc.—H. W. Kahl & Sons will expend \$3000 to \$5000 to erect recently-noted plant; 40x100 feet; practically fireproof; first floor, concrete brick and block factory with steam drykiln; daily capacity, 10,000 brick and 600 concrete blocks. (See "Machinery Wanted.")

Miss., Biloxi.—Concrete Bricks, etc.—Petrous Manufacturing Co., D. G. Ziegler, superintendent, will install additional equipment and increase capacity. (See "Machinery Wanted.")

N. C., Elizabeth City.—Cement Bricks, etc. W. E. Dunstan is interested in proposed establishment of plant to manufacture cement bricks and blocks. (See "Machinery Wanted.")

### COTTON COMPRESSES AND GINS

Okl., Wynnewood.—Farmers' Gin Co., capital stock \$10,000, incorporated by S. O. Richardson, C. E. Kennedy, H. A. Sadler, W. B. Vaughn and others.

Tenn., Friendship.—Planters' Gin Co., recently noted (under Tenn., Alamo) incorpo-

## PROPOSAL ADVERTISEMENTS

IN THIS ISSUE ARE

### PUBLISHED ON PAGE 82 and 83

In order to secure best bids from leading engineers, contractors and investment houses, the proposal advertising columns of the Manufacturers Record are invaluable.

Rate 20 cents per line per issue.

When Proposal Advertisements cannot be sent by mail in time to secure insertion before date for opening bids, please wire advertisement copy collect by Day Letter

Proposal Advertising forms close Wednesday, 10 A. M.

residence of William Roller, commissioner, Kingsport, until April 5. (See "Machinery Wanted.")

Tex., Fort Worth.—Tarrant County Commissioners awarded contract to Austin Bros. of Dallas, Tex., and Atlanta, Ga., at \$31,000 for plans and construction of 12th St. bridge in North Fort Worth; use 162-foot span of old N. Main St. bridge; balance of structure to be of concrete girder type; 29-foot roadway with 7-foot sidewalk on each side; concrete floor; carrying capacity, 20-ton roller. (Call for bids lately noted.)

Va., Ashland.—Hanover county will construct 36-foot reinforced concrete bridge across Falling Creek; 12-foot roadway; bids received until March 20 at office of P. St. J. Wilson, State Highway Commissioner, Richmond, Va.; plans and specifications on file at office of Clerk of Court at Hanover, Va., and of J. L. Saunders, Ashland. (See "Machinery Wanted.")

Va., Norfolk.—Norfolk, Yorktown & Washington Railway Co., W. W. Terry, temporary secretary, will construct two bridges, 2400 feet and 700 feet, respectively, and several bridges 60 to 80 feet.

Va., Princess Anne.—Princess Anne county will construct bridge over Long Creek; bids received until March 20; plans and specifications on file in office of clerk at Princess Anne; for further information apply to P. St. J. Wilson, State Highway Commissioner, Richmond, Va. (See "Machinery Wanted.")

W. Va., Fayetteville.—Fayette Traction Co., R. H. Dickinson, Jr., interested, will erect about six stone and concrete bridges on proposed railroad from Fayette to Fayetteville.

### CANNING AND PACKING PLANTS

Ark., Camden.—Col. S. Q. Sevier and others will establish fruit and vegetable cannery.

### CLAYWORKING PLANTS

N. C., Henderson—Bricks.—J. S. Poythress will establish plant to manufacture bricks; daily capacity 20,000. (See "Machinery Wanted.")

Okl., Ada—Bricks.—Pontotoc Brick, Tile & Stone Co. organized by W. M. Van Zandt of Oklahoma City, Okla., and others; will establish plant to have daily capacity of 30,000 bricks.

Tex., Houston.—Clay Products.—Vandaveer Clay Products Co., 811 Franklin Ave. (recently noted incorporated, \$30,000 capital stock), H. C. Vandaveer, president, advises is sales company to contract for sale of output of clay-working plants.

W. Va., Chester—Crockery, etc.—Consolidated Manufacturing Co., capital stock \$25,000, incorporated by A. O. C. Adrendts, B. O. McCaron, Mariunda Adrendts and others.

W. Va., Mannington.—Pottery.—Bowers Pottery Co., Geo. W. Bowers, president (recently noted incorporated, \$500,000 authorized capital), advises has taken over business of Homewood Pottery Co.; same management.

W. Va., Moundsville.—Bricks.—Suburban Brick Co., B. F. Hodgman, president, awarded contract to Bodley & Phillips, Moundsville, for construction of two 30-foot round kilns; materials purchased.

### COAL MINES AND COKE OVENS

Ala., Andalusia.—Black Warrior Mill Co., E. L. More, president, River Falls, Ala., will develop coal and timber lands. (See "Lumber Manufacturing Plants.")

Ala., Birmingham.—Donaldson-Grant Coal Co., capital stock \$5000, incorporated; C. J. Grant, president-general manager; J. M. Donaldson, secretary-treasurer.

rated with \$5000 capital stock, will erect frame and sheet-iron building for cotton gin; machinery supplied; daily capacity 25 bales; R. W. Higgins, president and manager; R. E. Edmondson, vice-president; F. S. Moore, secretary-treasurer.

Tex., Alto.—Alto Gin & Crate Co., Box 180 (recently noted incorporated, \$10,000 capital stock), will operate plant with daily capacity of 125 bales cotton and 4000 crates; machinery installed; S. D. Godson, president; G. W. Hughes, manager. (See "Machinery Wanted.")

Tex., Lexington.—Farmers' Gin & Cotton Co., capital stock \$7000, incorporated by William Fricke, L. Hernung and A. Hahn.

Tex., Sinton.—Sinton Compress Co., capital stock \$35,000, incorporated by H. H. Phillips, R. R. Redus and Will Ficklin.

### COTTONSEED-OIL MILLS

Ga., Arlington.—Arlington Cotton Oil Co. incorporated with \$75,000 capital stock; J. S. Cowart, president and manager; W. E. Saunders, vice-president; John D. Little, treasurer; Hugh S. Cowart, secretary; will erect three-press mill; machinery and material purchased.

Ga., Union Point.—Union Point Oil Co. will rebuild cottonseed-oil mill burned at estimated loss of \$50,000.

Tex., Denison.—Industrial Cotton Oil Co. awarded contract to French Oil Mill Machinery Co., Piqua, O., for complete seven-press-room equipment for plant previously noted to be rebuilt, with building contract awarded.

### DRAINAGE AND IRRIGATION

Ark., Lonoke.—Commissioners Indian Bayou Drainage District of Lonoke county have completed arrangements for drainage of lands between Indian Bayou and Jefferson county line; cost about \$125,000; C. M. Witherspoon, president of district.

Ark., Newport.—Overcup Drainage District, Jackson and Woodruff counties, D. L. Shoffner of Shoffner, Ark., chairman Board of Commissioners, will construct 30 miles dredge ditches; bids received April 4 at office of Jones & Campbell, attorneys, Newport; engineer, Morgan Engineering Co., Memphis, Tenn. (See "Machinery Wanted.")

### ELECTRIC PLANTS

Ala., Birmingham.—Birmingham Railway, Light & Power Co. awarded contract to Southern Bridge Co. to erect recover power station; cost \$3072.

Ark., Hot Springs.—Federal Light & Traction Co., 60 Broadway, New York (recently noted as taking over public utilities, including electric, railway and water plants), advises as follows: Central Arkansas Railway & Light Corporation acquired stocks and bonds of operating companies in Hot Springs; all stock of Central Arkansas Railway & Light Corporation is owned by Federal Light & Traction Co.; acquired properties include Central Arkansas Railway & Light Corporation, Hot Springs Street Railway Co., Consumers' Gas Co., Citizens' Electric Co. and Hot Springs Water Co.

Ark., Pine Bluff.—Pine Bluff Hotel Co. will install electric-light and water plant in hotel now in course of erection; machinery contract awarded; cost \$12,500.

Ark., Wynne.—City awarded contract to N. S. Sherman Machine & Iron Works, Oklahoma City, Okla., at about \$70,000 to improve electric-light plant, water-works and sewer system; R. C. Huston & Co., consulting engineers, 630 Exchange Bldg., Memphis, Tenn. (Call for bids lately noted.)

Fla., Chipley.—Chipley Light & Power Co., A. A. Myers, Jr., president, has engaged Solomon-Norcross Company, Atlanta, Ga., as engineer in charge of construction of electric-light plant recently noted; develop 100 to 125 horse-power; cost \$7000 to \$10,000; erect no buildings. (See "Machinery Wanted.")

Fla., Jacksonville.—Southern Utilities Co. is reported being organized, to acquire electric plants valued at more than \$1,000,000, by G. D. Baker and R. W. Leigh of Jacksonville, Marion McMillin of New York, H. F. Sibley of Chicago and Bantes & Co. of Philadelphia.

Fla., Jacksonville.—City awarded contract to Florida Electrical Co. for underground cable for lighting business section; cost about \$115,000. (Recently mentioned.)

Fla., Live Oak.—Engineering Securities Co., holder for J. G. White & Co., New York, purchased local electric-light plant for \$50,000; reported to improve and operate. (See "Ice and Cold-storage Plants.")

Ga., Abbeville.—City votes April 8 on \$8000 bond issue to construct electric-light system; O. F. Beckham, Mayor.

Ga., Vidalia.—City votes April 5 on \$15,000 bond issue for improvements to electric-light plant and water works. Address The Mayor.

Ky., Hazard.—Hazard Light & Power Co., capital stock \$10,000, incorporated by W. E. Hemphill, B. P. Wooten and J. T. Lovelace.

La., Jennings.—Southern Heat & Light Co. purchased C. C. Johnson's electric-light plant; contemplates erecting \$10,000 addition to gas plant in which to install equipment of plant purchased and additional turbines and generator.

Md., Ebersole.—Allegany County Road Directors granted franchise to Andrew Ramsey Corporation (main office, Mount Savage, Md.) to construct electric-light and power system from near Ebersole to Corriganville; will consolidate two plants, one at Ebersole and other at Mount Savage; purchased land near Ebersole and will build electric-light and power plant. (Recently mentioned.)

Md., Ebersole.—Allegany County Road Directors granted franchise to Cooks Mills Electric-Light & Power Co., controlled by Deal Bros. of Cumberland, Md., to construct electric-light system. (Recently mentioned.)

Mo., Joplin.—City votes April 15 (date postponed from March 11) on \$60,000 bond issue to build addition to electric-light plant; develop 500 horse-power; C. B. Anderson of Joplin, engineer in charge. (Recently mentioned.)

N. C., Mebane.—E. S. Parker, Jr., Graham, N. C. (previously noted as attorney), states recently-noted franchise for power and lights was taken in name of individuals; will be assigned to and privileges given exercised by Piedmont Railway & Electric Co. (not "Piedmont Electric Co.," as recently reported; Mr. Parker not connected with the latter company).

N. C., Selma.—City will issue \$5000 bonds for completion of electric-light and water systems; J. A. Mitchener, Mayor.

N. C., Wilson.—City votes April 15 on \$80,000 bond issue to enlarge and rebuild electric-light plant. Address The Mayor. (Benton & Moore of Wilson recently reported as preparing plans for power plant 99x111 feet.)

N. C., Woodland.—Woodland Electric Light & Power Co., capital stock \$25,000, incorporated by E. G. Griffin, C. J. Parker and R. C. Bonthall; proceeding with construction of \$4000 plant; develop 35 horse-power.

S. C., McColl.—City votes March 31 on \$10,000 bond issue for electric-light system. Address The Mayor. (Recently mentioned.)

Tenn., Henderson.—City votes March 28 on \$50,000 bond issue to construct electric-light plant or water-works or both. Address The Mayor.

Tex., Alice.—City will grant franchise for electric-light system; bids received until March 17; P. S. Anderson, clerk. (See "Machinery Wanted.")

Tex., Mercedes.—City Council is considering granting franchise to S. A. Robertson of San Benito, Tex., to operate electric-light plant and water-works; proposes to purchase and extend local systems.

Tex., Mount Pleasant.—Albert Emanuel of Dayton, O., acquired electric-light and ice plants of Farmers & Merchants' Cotton Oil & Manufacturing Co.; is having plans prepared by Robert M. McCandlish Engineering Co., Kansas City, Mo., to rebuild plant and install 30-ton ice-making system.

### FERTILIZER FACTORIES

Tex., Sabine.—South Coast Oil & Fertilizer Co. organized by C. E. Smith of Port Arthur, Tex., and associates to manufacture menhaden oil; later will establish fertilizer factory, manufacturing fertilizer from fish after oil has been extracted.

### FLOUR, FEED AND MEAL MILLS

Ky., Cadiz.—J. J. Alexander is preparing to install grist mill; daily capacity 50 to 100 bushels cornmeal. (See "Machinery Wanted.")

Mo., Williamsville.—Williamsville Roller Mill Co. will build 75-barrel flour mill; also install feed and cornmeal equipment; operate by electricity; awarded contract for machinery.

Mo., Sparta.—John F. Meyer & Sons Milling Co. and Sam McCrackin of Springfield, Mo., are interested in organization of company to establish 40-barrel flour mill; cost about \$7000.

Mo., Montgomery City.—Prairie Milling Co., capital stock \$80,000, incorporated by C. F. Palmer, O. E. Porter, W. L. Hibbert and others.

Tex., Dallas.—E. W. Morten advises that

Morten Milling Co. (copartnership) will erect mill recently noted to be built by New Century Milling Co.; construction by company; no contracts; cost about \$60,000; daily capacity 1000 barrels flour and 400 bushels meal; building will be three stories; concrete, brick and steel; 225x400 feet.

### FOUNDRY AND MACHINE PLANTS

Ala., Boyles.—Cast-Iron Mains.—National Cast Iron Pipe Co., 2111 Third Ave., Birmingham, Ala., awarded contract to F. W. Mark Construction Co., Birmingham, to construct buildings; foundations by National Cast Iron Pipe Co., and latter will also erect number of minor buildings; foundry building 480x66 feet, machine shop 210x66 feet and cleaning sheds 30x252 feet and 30x126 feet; steel construction; concrete base; brick sides and ends; corrugated-iron roof; contract for steel awarded to Virginia Bridge & Iron Co., Roanoke, Va.; will purchase cranes and machine-shop equipment. (Recently noted.)

Ala., Gadsden.—Pipe and Fittings.—Gadsden Pipe & Fittings Co. has begun erection of soil-pipe factory under supervision of Otto Agricola, manager; main building 250x75 feet, with two wings, each 50 feet square; machine shop 40x60 feet; cement and wood construction; felt roof; cost \$75,000; construction by company; machinery supplied. (Recently mentioned.)

La., New Orleans.—Machinery.—Stern Foundry & Machine Co., 1363 St. Thomas St., awarded contract at \$24,853 to John Minot for building; one story; brick and concrete; plans by Diboll, Owen & Goldstein of New Orleans. (Lately noted.)

N. C., Laurinburg.—Plows.—Southern Plow Works, capital stock \$25,000, incorporated by Roy L. Hammond, Edwin Morgan and J. L. Caldwell.

Okla., Sapulpa.—Machinery.—Charles Tenon Machine Co., capital stock \$6000, incorporated by Charles E. Volk, Charles C. Cox, W. L. Evans and Louis Johnson.

Tenn., Nashville.—Dairy Equipment, etc.—Louden Machinery Co. of Fairfield, Iowa, will, it is reported, establish plant.

Tex., San Antonio.—Machinery.—San Antonio Machine & Supply Co. increased capital stock from \$250,000 to \$300,000.

Va., Norfolk.—Machinery.—Auxiliary Resaw Corporation, capital stock \$25,000, chartered; A. D. Newcomb, president, Kempville, Va., R. F. D. from Norfolk; R. W. Tomlin, vice-president, Norfolk, Va.; John H. Trant, Jr., secretary-treasurer, Norfolk, Va.

### GAS AND OIL ENTERPRISES

Ala., Birmingham.—Gas Plants.—Birmingham & Tuscaloosa Railway & Utilities Co., nominal capital \$3500, incorporated by C. R. Carter, C. A. Gannon and W. D. Adams; to construct gas plants in Jefferson, Etowah and Tuscaloosa counties, build railways, etc.

Ala., Birmingham.—Gasholder.—Birmingham Railway, Light & Power Co. will expend \$10,000 for foundation work for gasholder. (Recently noted to construct gasholder to cost \$200,000.)

Ark., Jonesboro.—Gas Plant.—R. E. Randolph and associates have secured gas franchise and will install plant.

La., Jennings.—Joseph L. Block, auditor, advises that Martel Syndicate (recently noted incorporated, \$10,000 capital stock), has its machinery and supplies purchased by Gulf Refining Co. of Louisiana, with headquarters in Beaumont, Tex., with whom Martel Syndicate operates by joint agreement on Jennings oil field, in Acadia parish, Evangeline P. O.

Ky., Louisville.—Bullitt's Lick Oil Co., capital stock \$12,500, incorporated by J. H. Miller, J. F. Miller and D. T. Mitchell.

La., Vivian.—Woodlawn Oil & Gas Development Co., \$200,000 capital stock, incorporated by C. E. Dunson, D. A. Williamson and E. E. Mosher, all of Vivian.

Md., Baltimore.—Gas.—Consolidated Gas, Electric-Light & Power Co., Lexington and Liberty Sts., will erect two buildings at Carey and Wicomico Sts.; fireproof; brick and steel; 58x176 feet.

Okla., Anadarko.—Caddo Gas & Oil Co., capital stock \$10,000, incorporated by Joseph H. Baroff, Eugene H. Leutewiller and Claud R. Mills.

Okla., Bartlesville.—Associates' Producer Co., capital stock \$10,000, incorporated by A. D. Morton, Frank Bucher, W. H. Byron and others.

Okla., Bartlesville.—Washington Oil & Gas Co., capital stock \$25,000, incorporated by L. A. Rowland, J. D. Talbot and Peter Nyce.

Okla., Claremore.—W. H. Candler, secretary, states Commercial Club is negotiating with J. E. Hoshal of Muskogee, Okla., relative to gas supply for manufacturing; franchise to be granted to new company.

Okla., Cleveland.—Ten Okla. Oil, Gas & Mineral Co. (recently noted incorporated, \$100,000 capital stock) contemplates oil and gas development; also development of zinc mines in Tennessee and Kentucky; O. P. Mauck, secretary and engineer in charge.

Okla., Cushing.—Cushing Oil & Gas Development Co., capital stock \$40,000, incorporated by T. J. Green of Cushing; S. F. Klemme of Oklahoma City, Okla.; E. F. Burgett of Chickasha, Okla., and others.

Okla., Davenport.—Richard Oil & Gas Co., capital stock \$15,000, incorporated by W. W. Groom, O. D. Groom, N. P. Myers and others.

Okla., Manchester.—Manchester Oil & Gas Co., capital stock \$15,000, incorporated by J. M. Simmons, T. W. Peters, H. W. Reneau and others.

Okla., Muskogee.—Buena Vista Gas & Oil Co., capital stock \$5000, incorporated by W. K. Callahan, H. C. Krause, Thomas Duncan and others.

Okla., Muskogee.—Gopher Oil Co., capital stock \$4000, incorporated by J. E. Daniels, Hugh L. Head and John Spangenberg.

Okla., Muskogee.—Boynton Oil, Gas & Fuel Co., capital stock \$25,000, incorporated by John H. Mosler, Charles Francis, F. S. Miller and others.

Okla., Oklahoma City.—Ballew Oil & Gas Co., capital stock \$12,000, incorporated by W. A. Darby, R. R. Bell, both of Oklahoma City; B. D. Hite of Anadarko, Okla., and others.

Okla., Oklahoma City.—Pocahontas Oil & Gas Co., capital stock \$15,000, incorporated by George S. Black, O. S. Kelly and R. W. Day.

Okla., Oklahoma City.—Typhoon Oil & Gas Co., capital stock \$10,000, incorporated by Albert Herskowitz, Hugo Kapp, A. D. Englesman and Harry Herskowitz.

Okla., Sand Springs.—Oil Refinery.—Waters-Pierce Oil Co., St. Louis, Mo., will build oil refinery and reports state will invest \$2,000,000; company wires Manufacturers Record: "Plans in indefinite shape; will not be able to furnish cost and capacity for at least 30 days." (Recently reported as proposing to build this plant at Tulsa, Okla.)

Okla., Collinsville.—Canadian Club Oil Co., capital stock \$5000, incorporated by E. G. Godshalk, Joseph D. Ward and Sadie Ward.

Okla., Okeene.—City will vote on \$10,000 bond issue to drill for oil. Address The Mayor.

Okla., Oklahoma City.—Fairfax Oil & Gas Co., capital stock \$5000, incorporated by Warren D. Oxmun of Fairfax; Boone D. Hite of Anadarko, Okla.; E. A. Haines and J. B. Doolin of Alva, Okla.

Okla., Oklahoma City.—Gasoline Plant.—Pole Creek Oil & Gas Co., 512 Campbell Bldg. (recently noted incorporated, \$25,000 capital stock, and to construct pumping station of 100 to 500 barrels capacity), now contemplates plant for reduction of gas to gasoline; unit plan, capacity of about 4,000,000 cubic feet daily; asks estimates, to be addressed to K. Marston Scoville, engineer in charge, 517 Campbell Bldg., Oklahoma City. (See "Machinery Wanted.")

Okla., Okmulgee.—Whitman Oil Co., incorporated by M. F. Graham, C. S. Dawley, N. D. Boyd and others.

Tex., Beaumont.—Gulf Oil Corporation, W. J. Guthrie, secretary, Frick Bldg., Pittsburgh, Pa., will hold meeting March 20 to authorize increase of capital stock from \$15,000,000 to \$50,000,000 to provide ample working capital to assure adequate supply of crude oil, construction of pipe lines and development and extension of business as conditions require.

Okla., Tulsa.—Blackford Oil Co., capital stock \$10,000, incorporated by M. V. Harner, S. B. Miles and C. W. Grimes.

Okla., Tulsa.—Chester Oil Co., capital stock \$15,000, incorporated by Fred D. Oiler, W. C. Kelly and John M. Chick.

Va., Chincoteague Island.—Gas Plant.—Delaware Light & Ice Co., Selbyville, Del., will build gas plant. (See "Ice and Cold-storage Plants.")

W. Va., Clarksburg.—Flint Oil Co., capital stock \$10,000, incorporated by Ernest Hutton, R. A. Farland, S. M. Gallaher and others.

### ICE AND COLD-STORAGE PLANTS

Ala., Enterprise.—G. M. Heath, T. A. Byrd and others organized company to establish 15-ton ice plant.

Fla., Cedar Keys.—Adolph Berli contemplates, it is reported, establishing ice fac-



tory, fish freezing and storage-house and water-works to cost \$25,000.

Fla., Chipley.—J. R. Calloway contemplates building ice plant.

Fla., Fort Myers.—Engineer's Security Co. of New York purchased plant of Seminole Power & Ice Co.; will enlarge and remodel; double capacity of plant, increasing to 100 tons ice daily.

Fla., Live Oak.—Engineering Securities Co., holder for J. G. White & Co., New York, purchased local ice and electric plants; purchase price of former, \$35,000, and of latter, \$50,000; reported to improve, combine and operate with electricity.

Ky., Georgetown.—Hartford Independent Ice Co. capital stock \$30,000, incorporated by B. F. Stone, J. S. Montgomery and R. A. Hamilton.

La., Kenner.—Truckers' Ice & Cold-Storage Co., capital stock \$15,000, organized; will improve and operate Kenner ice plant.

La., New Orleans.—Washington Ice Co. awarded contract to Robb Engineering Co., Farmington, Mass., for three 300-horsepower internal-fired Scotch boilers of special construction, with 6x150-foot self-supporting steel smokestack and isolated boiler-house; total cost, \$24,500; daily capacity of plant, 100 tons of ice; contract for 37x48x22-foot brick building recently noted awarded to Charles E. Kehl; Walter A. Taylor, architect and engineer.

Mo., Fayette.—Fayette Light, Ice & Coal Co. organized with John B. Bell, president; will build 15-ton can ice factory; plans by Robert M. McCandlish Engineering Co., Kansas City, Mo.; contract awarded for machinery.

Mo., Kansas City.—Carr-Hackett Fish & Oyster Co. will build cold-storage and freezing plant; 50x110 feet; three stories; reinforced concrete fireproof construction; cost \$50,000; contract awarded to Fogel & Son; plans by Jackson & McIlvain; cost of machinery, \$10,000.

Mo., Louisiana.—Louisiana Pure Ice Co. will double present capacity of 10 tons daily.

Tenn., Huntingdon.—Southern Ice & Coal Co., capital stock \$20,000, incorporated by James H. McCall, O. T. McCall, L. McCall and others.

Tex., Mt. Pleasant.—Albert Emanuel of Dayton, O., acquired ice and electric-light plants of Farmers & Merchants' Cotton Oil & Manufacturing Co.; is having plans prepared by Robert M. McCandlish Engineering Co., Kansas City, Mo., to rebuild plant and install 30-ton ice-making system.

Tex., Pecos.—F. W. Johnson and others organized company with \$15,000 capital stock to build cold-storage plant.

Tex., Rio Grande.—R. R. Margo will build ice plant and soda-water factory; former to have daily capacity of five tons.

Va., Chincoteague Island.—Delaware Light & Ice Co., Selbyville, Del., purchased property of Chincoteague Light & Power Co.; will build ice and gas plants costing about \$50,000.

Va., Virginia Beach.—Virginia Beach Ice Plant Co., capital stock \$25,000, incorporated to establish ice plant; Charles E. Barco, president; Russell H. Land, vice-president; H. W. McClanahan, secretary-treasurer; A. L. Donaldson, chief engineer.

## IRON AND STEEL PLANTS

Tenn., Clarksville.—Iron Furnace.—Red River Furnace Co. will, it is reported, soon blow in its iron furnace, to which repairs have been made.

Va., Pulaski.—Iron Furnace.—Pulaski Iron Co., Real Estate Trust Bldg., Philadelphia, Pa., writes to Manufacturers Record: "Unable to give information relative to proposed additional blast furnace, as we have not reached definite conclusion." (Company was reported as to build another furnace.)

## LAND DEVELOPMENTS

Ala., Boyles.—Washington Park Land Co. incorporated to develop home sites near Boyles; plat about 30 acres; Arnold Massburg, president; Arthur Granville, vice-president; Dr. H. A. Alkourie, secretary; M. E. Linnehan, treasurer.

Ark., Hickory Ridge.—Ada Farms Co., capital stock \$300, incorporated by J. Broerman, E. L. Bodge, W. A. Thompson and Frank O. Hadley.

Fla., Palatka.—Palatka Land Development Co., capital stock \$50,000, will be incorporated; purchased nine blocks and will improve; lay sidewalks, erect residences, etc.; H. A. Davis, president; H. O. Hamm, vice-president; Dr. L. W. Warren, secretary-treasurer.

Ga., Dublin.—City will vote on issuance of

\$3000 bonds for improving Stubbs Park. Address The Mayor.

Ky., Cave City.—Iron Springs Co., capital stock \$50,000, incorporated by Moss J. Beall, L. E. Comstock and W. M. Ewing.

La., Shreveport.—City defeated \$50,000 bond issue to purchase additional property and to improve State Fair grounds. Address The Mayor. (Recently mentioned.)

Md., Easton.—Orchard Knob Apple Co., capital stock \$10,000, organized with Joseph B. Seth president, Easton; Orlando Harrison, vice-president, Berlin, Md.; F. W. Seth, secretary-treasurer, Easton; purchased 100-acre farm and will plant 8000 apple trees on 75 acres of farm; date of opening bids not set.

Md., Mt. Washington.—Bert T. Spencer, Hamilton Rd., Mt. Washington, representing Cross Country Boulevard Realty Co., acquired W. S. Carroll property, comprising 50 acres at Mt. Washington; will develop as residential section.

N. C., Surry County.—Orland Harrison of Berlin, Md., purchased 300 acres land in Surry and Wilkes counties and will develop for apple orchard.

Okla., Grand.—Belle View Cemetery Association incorporated by A. D. Shumaker, O. C. Kennedy and others.

Tex., Galveston.—Port Bolivar Development Co., capital stock \$50,000, incorporated by W. Q. Moody, Jr., G. H. Wilder, J. P. McDonough and others.

Tex., Yorktown.—De Witt County Land & Cattle Co. will develop 8000 acres of land in Jim Wells and Duval counties for farming purposes; cost of improvement, \$20 per acre; C. L. Strieber, president; Louis Strieber, secretary-treasurer; company incorporated with \$121,500 capital stock, not \$121,000 as recently stated.

Tex., Whitsett (not a postoffice).—Whitsett Town Co., recently noted incorporated (under Tex., Cuero) with \$14,000 capital stock by Walter Kelfert and others, states will develop land for new town of Whitsett, on San Antonio, Uvalde & Gulf Railway.

Va., Norfolk.—Tropical Development Corporation, capital stock \$200,000, chartered; J. P. Lewis, president; S. H. Turner, secretary-treasurer, both of Petersburg, Va.; J. C. Byars, vice-president, Norfolk.

Va., Glenvar.—Virginia Apple Co. will develop 180 acres land for orchard and farming; now has 3000 apple trees on tract; in spring will plant 3000 additional trees and in fall 4000; also plant 50 acres of tomatoes, 25 acres of potatoes and 25 acres sweet corn and beans; later plant tracts in strawberries and raspberries; contemplates building cannery to handle output of truck garden and orchard. H. C. Kelsey of Roanoke, Va., is secretary-treasurer. (Previously mentioned.)

Va., Richmond.—Henrico Construction & Realty Corporation, capital stock \$15,000, chartered; Nelson Moore, president, Rochester, N. Y.; Sylvester C. Cowell, secretary, 1339 U St. N. W., Washington, D. C.; John C. Cowell, Washington, D. C.

Va., Richmond.—Harvie Realty Corporation, T. F. Fry, president, will develop "Cherokee Place," embracing 52 acres in Henrico county; will divide property into building lots, and plans to construct gas, water, sewer and electric systems.

Va., Richmond.—North Richmond Realty Corporation, D. R. Creecy, secretary (recently noted chartered, \$15,000 capital stock), will develop 37 acres near Richmond.

W. Va., Keyser.—Walnut Springs Orchard Co., capital stock \$5000, incorporated by T. T. Huffman, W. C. Grimes, H. L. Arnold and others.

W. Va., Williamson.—Skillet Fork Land Co., capital stock \$100,000, incorporated; Harry Scherr, president; R. L. Wall, secretary; 1500 acres to develop; may not develop at present.

## LUMBER MANUFACTURING

Ala., Andalusia.—Black Warrior Mill Co., capital stock \$100,000, incorporated with E. L. More, president, River Falls, Ala.; Cyrus A. O'Neal, vice-president, Andalusia; Henry Stanley, secretary, River Falls; will install sawmills and develop coal and timber lands.

Ala., Halston.—H. R. Ray awarded contract to Standard Construction Co., Meridian, Miss., to construct sawmill; 45x108 feet; mill construction; galvanized-iron roof; cost \$1800; cost of lighting \$350; later will add planing-mill sheds and drykilns.

Ala., Mobile.—Van Heuvel Logging Co., capital stock \$5000, incorporated by Martin Van Heuvel, William Van Heuvel and Josie Van Heuvel.

Ark., Arkadelphia.—Arkadelphia Milling Co. will build sawmill to have daily capacity 20,000 to 25,000 feet.

Ark., Caddo Gap.—Gap Lumber & Stave Co., capital stock \$20,000, incorporated by W. B. Barton, L. J. Witherapoon, P. Cobb and others.

Ark., Miller County.—W. T. Caldwell (cashier Bank of Vivian), Vivian, La., purchased 1000 acres land in Miller county; about 600 acres are covered with hardwood timber and balance in cultivation.

Ark., White Hall.—Sebastian Wals, Union, Mo., contracted with L. H. Frizzell, Nettleton, Ark., to install mill; daily capacity, 6000 feet hardwood lumber and ties.

Ky., Whitesburg.—Moberly & Robinson have purchased timber land and will install sawmills.

Ky., Whitesburg.—Kentucky Hardwood Lumber Co., Quicksand, Ky., purchased timber land and will install sawmill.

La., Alexandria.—Bayou-Rapides Lumber Co., J. G. Gingsras, president, contemplates increasing capital stock from \$75,000 to \$125,000; L. Seiss, secretary-treasurer, states capacity of recently-noted mill will be 100,000 per 10 hours; contract awarded to Filer & Stowell Company, Milwaukee, Wis. (Purchase of 8000-acre timber tract, etc., previously noted.)

La., Shreveport.—Campbell, Smith & Ritchie of Lebanon, Ind., purchased 10,000 acres hardwood timber land; will probably develop and establish cabinet factory.

Miss., Carriere.—Foley-Pace Lumber Co., Hattiesburg, Miss., recently noted (under "Hattiesburg") incorporated with \$25,000 capital stock, has completed previously-mentioned plant; daily capacity about 30,000 feet yellow pine; Geo. L. Pace, secretary-treasurer, states that present machinery needs are supplied, but company will probably erect another mill in near future; J. M. Foley, president and manager; J. W. Poole, vice-president.

Miss., Gregory.—Attalia Lumber Co. has completed mill; cost of construction, complete, \$15,000; daily capacity, 40,000 feet of timber. (Recently noted incorporated with \$40,000 capital stock at Starkville, Miss., by W. F. Clary and others.)

Miss., Moorhead.—John Deiweber Company will, it is reported, install sawmill.

Mo., Kirksville.—N. D. Arnold Lumber Co., capital stock \$10,000, incorporated by N. D. Arnold, P. C. Mills and Warner Mills.

Mo., Kirksville.—W. C. Arnold Lumber Co., capital stock \$15,000, incorporated by W. C. Arnold, Warner Mills and S. W. Arnold.

Mo., St. Louis.—A. W. Sumner Lumber Co., capital stock \$4000, incorporated by A. W. Sumner, Thomas F. Perry and Henry F. Reis.

Mo., St. Louis.—Monarch Lumber Co., capital stock \$25,000, incorporated by F. A. Goodrich, J. E. Crawford, J. A. Myers and others.

Mo., St. Louis.—R. M. Morris Lumber Co., capital stock \$10,000, incorporated by R. M. Morris, T. J. Wolf and F. E. Myers.

Mo., St. Louis.—Monarch Lumber Co., capital stock \$25,000, incorporated by Frederick A. Goodrich, J. A. Meyer, G. A. Hartt and others.

Mo., St. Louis.—Acme Lumber Co., capital stock \$6000, incorporated by A. E. Metter, C. A. and H. Hunstein.

Tenn., Athens.—Wolfe Lumber Co., capital stock \$10,000, incorporated by M. E. Bryant, J. R. Wolfe, J. L. Ferguson and others.

Tenn., Memphis.—Memphis Band Mill Co., capital stock \$100,000, incorporated by J. F. McSwery, O. A. Filger, K. L. Emmons and others.

Tex., Jacksonville.—Jacksonville Lumber Co. (J. H. Staton, R. O. Watkins and others) increased capital stock and will improve plant.

Va., Parker.—V. T. Lancaster and W. T. Whitshire purchased 788 acres timber land.

Va., Richmond.—Poplar Lumber Corporation, capital stock \$75,000, incorporated; D. H. Morgan, president; C. S. Henry, vice-president; both of New York; W. Gordon Isaac, secretary-treasurer, Norfolk, Va.

Va., Tazewell.—W. L. Denius, Grundy, Va., states land recently noted purchased in Buchanan county contains timber also; he holds it as coal proposition. (See "Coal Mines and Coke Ovens.")

W. Va., Welch.—Tug Fork Planing Mill Co. (recently noted incorporated, \$25,000 capital stock) will erect mill-construction building costing about \$10,000; construction by company; install planing mill and wood-working machinery, mainly purchased; J. D. Green, president; J. W. Doss, vice-president; Oscar Bohm, treasurer; R. W.

Branscome, secretary and manager. (See "Machinery Wanted.")

## METAL-WORKING PLANTS

N. C., Whitney.—Aluminum.—Southern Aluminum Co. has, it is reported, awarded contract to B. H. Hardaway of Columbus, Ga., for construction of dam on Yadkin River seven miles below present uncompleted dam; new dam to be 1000 feet long and at least 150 feet high, of concrete construction, raising water at least two feet over uncompleted dam near Whitney and developing 45,000 horse-power; construction will provide nine square miles of water; hydro-electric machinery will be installed to develop electricity, which company will use for manufacturing aluminum in big plant heretofore announced. Report states dam will cost \$2,000,000. Mr. Hardaway wires Manufacturers Record: "Not yet ready to advise conclusively about Southern Aluminum Co. contract; will be at early date." (Company's plans for hydro-electric and aluminum plant heretofore reported.)

Mo., St. Joseph.—Fire-escapes.—American Fire-Escape Co., capital stock \$10,000, incorporated by Frederick Biehnen, Benjamin Phillips and Romulus E. Culver, all of St. Joseph, Mo.

## MINING

Ga., Rome.—Iron.—Smith-Hughes Mining Co. will develop 400 acres of mining property; present daily capacity, 40 to 50 tons of ore; machinery purchased; B. I. Hughes, president; H. T. Reynolds, vice-president; Lewis R. Smith, manager. (Recently noted incorporated with \$15,000 capital stock.)

Mo., Joplin.—Lead and Zinc.—J. M. Short Mining & Development Co., capital stock \$300,000, organized with J. M. Short president, Joplin; Graham Vreeland, vice-president, Frankfort, Ky.; Stanley Watson, secretary-treasurer, Kansas City, Mo.

Mo., Cartersville.—Lead & Zinc.—Becker Mines Co. will develop 32½ acres of lead and zinc deposits; daily output not determined; machinery purchased; B. T. Becker, president; M. B. Becker, secretary-treasurer; Sardius Smith, vice-president. (Recently noted incorporated with \$10,000 capital stock.)

Okla., Wyandotte.—Tripoli.—Wyandotte Tripoli Co., Miami, Okla. (recently noted incorporated with \$100,000 capital stock), will develop 40 acres of land containing tripoli; daily capacity 50 tons; machinery bids opened April 1; J. P. McNaughton, president; E. B. Ballard, vice-president; J. W. Swartz, secretary-treasurer. (See "Machinery Wanted.")

Tennessee.—Zinc.—Ten Okla. Oil, Gas & Mineral Co., O. P. Mauck, secretary, Cleveland, Okla., states contemplates developing zinc mines in Tennessee and Kentucky within next 30 or 60 days. (See "Gas and Oil Developments.")

Tenn., Knoxville.—United Mining Co., capital stock \$10,000, incorporated by R. M. McMullin, H. G. McMullin, S. M. Cooper and others.

## MISCELLANEOUS CONSTRUCTION

D. C., Washington.—Riprap Jetties.—Government will repair and extend riprap jetties in Urbana Creek and Millford Haven, Va.; bids received at United States Engineer Office, 305 Southern Bldg., Washington, D. C., until April 7; information on application; W. C. Langfitt, Lieut.-Col. Engineers. (See "Machinery Wanted.")

Fla., Miami.—Docks, etc.—Dade County Commissioners will petition Legislature for authority to issue bonds to purchase water frontage on Biscayne Bay and construct docks and wharves.

Fla., St. Petersburg.—Harbor.—City Council approved plans by Henry C. Long of Boston, Mass., for harbor; plans provide for channel 4000 feet long and 225 feet wide, with provision for enlargement to width of 500 feet; depth 19 feet; slips and piers each 200 feet wide and 1350 feet long; seawall at entrance of channel 4000 feet from shore; from seawall, extending toward shore, pier and warehouses with city owned or controlled railroad; M. W. Spencer, City Engineer. (Previously mentioned.)

Ga., Atlanta.—Mausoleum.—Atlanta Mausoleum Co., capital stock \$125,000, organized with E. C. Callaway, president; W. Woods White and H. S. Johnson, vice-presidents; H. S. Johnson, Jr., treasurer; J. W. Willis, secretary; will build mausoleum on 35-acre tract; include chapel accommodating 1500 people; estimated cost, \$200,000.

Ga., Augusta.—Levee.—City will construct earth levee along river bank from Hawks Gully to 6th St.; estimated quantity, 250,000 cubic yards; bids received by Canal and River Commission until March 26; Nisbet

Wingfield, chief engineer, 747 Broad St., Augusta. (See "Machinery Wanted.")

Ga., Augusta—Raceway Gates.—Flood Commission awarded contract at \$59,956.62 to W. Z. Williams & Co., Macon, Ga., to construct gates to raceway of Sibley Manufacturing Co.

Ky., Paducah—Mausoleum.—West Kentucky Mausoleum Co. will build mausoleum near entrance to Oak Grove Cemetery; 40x130 feet; reinforced concrete; exterior of limestone and interior of marble; roof of concrete covered with tiling; airtight, waterproof and fireproof; contain 300 crypts; estimated cost \$45,000.

La., Shreveport—Levee.—Caddo Levee Board authorized advertisement for bids to construct \$300,000 drainage canal to divert Twelve-Mile Bayou into Cross Bayou and reclaim 100,000 acres land; rejected bids for Red River bank protection and for tying ends of levees (recently noted) amounting to \$250,000; will open new bids April 2.

La., Shreveport—Levee.—Board of Commissioners Caddo Levee District, J. M. Sentell, president, receives bids until April 2 (extended date) for revetting and securing, in accordance with plans and specifications of Board of State Engineers, ends of line of public levee on or near upper and lower banks of Twelve-Mile Bayou; recently noted. (See "Machinery Wanted.")

La., Shreveport—Levee.—Board of Commissioners, J. M. Sentell, president, Caddo Levee District, will construct bank protection work in following reaches: Scott's Slough, 2500 feet; Rattling Slough, 2500 feet; Havana, 2500 feet; Corner Place, 2000 feet; Fire Point, 2000 feet; Silver Point, 2000 feet; Twelve-Mile Bayou, 3000 feet; Dixie, 2000 feet; Lucas, 3000 feet; Leonard, 2500 feet; Long Point, 2000 feet; Campo Bello, 2000 feet; bids received until April 2; information on application to Board of State Engineers, Room 213 New Orleans Court Bldg., New Orleans. (See "Machinery Wanted.")

Md., Baltimore—Plumbing and Drainage.—City awarded contract to P. T. Barry Company, Linden Ave. and Dolphin St., Baltimore, at \$228.71 to reconstruct plumbing and drainage system at courthouse.

Md., Cumberland—Subway.—McHale & Co. of Philadelphia, Pa., have contract to construct subway under Baltimore & Ohio Railroad tracks at Baltimore St.; concrete construction; floor line of 100 feet; structure to be built jointly by railroad and city. (Recently mentioned.)

S. C., Charleston—Dredging.—Government awarded contract to P. Sanford Ross of Jersey City, N. J., to dredge Sampit Bar and river, Winyah Bay, S. C.; 220,000 cubic yards dredging; channel 400 feet wide and 18 feet deep; G. P. Howell, Major Engineers. (Call for bids lately noted.)

Tex., Texas City—Steamship Pier, etc.—Texas City Transportation Co. is reported as expecting to invest \$1,000,000 for enlarging ocean terminals, to include enlarging wharves, constructing another pier, building additional warehouses, etc.; J. R. Dillon wires Manufacturers Record: "Annual meeting will be held about April 1, at which time plans will be worked out; nothing definite so far."

Va., Dumbarton—Burial Vault.—Cement Burial Vault Co. incorporated; Roger Williams, president; M. L. Blackburn, vice-president; both of Richmond, Va.; H. E. Moore, secretary and treasurer, Dumbarton; capital stock \$10,000.

### MISCELLANEOUS ENTERPRISES

Ala., Birmingham—Printing.—Birmingham News, V. H. Hanson, manager, 215 N. 21st St., has plans by Thomas H. Joy of Joy Construction Co., Birmingham, for building; 90x100 feet; reinforced steel and concrete; fireproof; cost \$90,000; install improved machinery for printing plant. (Recently noted.)

Ala., Birmingham—Construction.—Carroll Blake Construction Co. incorporated with \$25,000 capital stock; Carroll Blake, president; David Roberts, Jr., vice-president and treasurer; Ralph A. Smallman, secretary; contractor for general building, engineering, etc.

Ala., Mobile—Lithographing and Engraving.—Aynsley Lithographing & Engraving Co. increased capital stock from \$10,000 to \$20,000.

Ark., Hot Springs—Stone and Ballast.—Butterfield Stone & Ballast Co., capital stock \$5000, incorporated by W. T. Hawkins, W. S. Rldpath, J. S. Reamey and W. S. Kinkham.

Fla., Fort Myers—Publishing.—N. C. Stout, editor Fort Myers Press, will erect two-story frame building on 1st St. (See "Dwellings.")

Fla., Jacksonville—Electrical Fixtures.—Livingston-Yonge Company, capital stock \$50,000, incorporated; T. B. Livingston, president-treasurer; R. E. Yonge, Jr., vice-president; W. F. Overstreet, secretary.

Fla., St. Petersburg—Publishing.—Evening Independent will erect additional story to office building and alter and enlarge present building; bids received until March 10; plans by Bonniwell & Son, Tonnelier Bldg., St. Petersburg.

Ga., Augusta—Police Telegraph System.—Police Commissioners will invite bids for installation of police telegraph system; \$7500 expenditure authorized.

Ky., Lexington—Laundry.—Mrs. W. R. Thomas will erect building for Cropper Laundry; cost \$6000.

Ky., Louisville—Paint and Roofing.—Central Paint & Roofing Co. increased capital stock from \$10,000 to \$30,000.

La., Lake Charles—Grain Elevator.—Josey-Miller Company of Beaumont, Tex., is considering erection of grain elevator.

La., New Orleans—Printing.—Times-Democrat Publishing Co. will install 13 multiple-magazine typesetting machines; equipment ordered.

Md., Baltimore—Iron and Steel, etc.—H. M. Foster Company, Continental Bldg. (recently noted incorporated, \$50,000 capital stock), will be agent for iron and steel, railway equipment and supplies; president, H. M. Foster of Baltimore; vice-president, M. M. Foster, Fairmont, W. Va.; secretary-treasurer, R. B. Johnson, Baltimore.

Mo., Kansas City—Printing.—Intercollegiate Press, capital stock \$6000, incorporated by John H. Bender, George D. Dearce, High J. Pickett and others.

Mo., St. Louis—Contracting.—Manegold Contracting Co., capital stock \$5000, incorporated by August Manegold, Roger J. Monahan and Martha E. Manegold.

N. C., Salisbury—Laundry.—Gem City Steam Laundry (E. M. Miller, Box 415, interested) will expend \$8000 to install machinery in building already erected. Mr. Miller recently noted to establish plant. (See "Machinery Wanted.")

Okla., Caddo—Engineering.—Davis Engineering & Constructing Co., capital stock \$10,000, incorporated by J. E. Davis and C. C. Semple of Caddo and C. B. Stuart of Kenedick, Okla.

Okla., Clinton—Publishing.—Clinton News Publishing Co., capital stock \$5000, incorporated by Richard A. Billups, J. J. McCurley, C. J. Cochran and others.

Okla., Muskogee—Construction.—A. F. Krummel Construction Co., capital stock \$3000, incorporated by A. F. Krummel, I. T. Wysong and L. E. Krummel.

Tex., Denison—Laundry.—Franz Kohfeldt & Son will erect building; one story; brick; 35x80 feet; occupied and equipped as steam laundry by R. H. Peter.

Tex., San Antonio—Construction.—McMullen Construction Co., capital stock \$10,000, incorporated by S. A. Hopkins, H. E. Hildebrand and F. Frank Davis.

Tex., Wichita Falls—Incinerator.—City awarded contract to R. L. Wagoner of Dallas, Tex., to build garbage incinerator; cost \$2500.

Va., Appalachia—Mine Supplies, etc.—Appalachian Mine Supply and Machine Works will be established to handle mine supplies, plumbing, automobile repairing, etc.; also electrical work, including winding armatures, repairing field coils, etc.; contemplates incorporation later; C. G. Duffy, president; B. L. Fulcher, vice-president; I. I. Feeny, secretary-treasurer; J. R. Whitel, manager.

Va., Petersburg—Wagons, etc.—Gresham & Co., S. R. Gresham, president, will handle manufactured articles, such as wagons, bugles, harness and agricultural implements. (Recently noted incorporated under "Foundry and Machine Plants" with \$10,000 capital stock.)

W. Va., Montgomery—Publishing.—Montgomery News Co., capital stock \$10,000, incorporated by L. S. Montgomery, M. J. Simms, J. J. Davis and others.

### MISCELLANEOUS FACTORIES

Ark., Conway—Brooms.—Central Broom Manufacturing Co., L. H. Pyle, president (recently noted incorporated, \$10,000 capital stock), will manufacture brooms, brushes and mops; broom capacity 40 to 75 dozen daily. (See "Machinery Wanted.")

Ark., Pine Bluff—Lignite Products.—Ark-Oil Manufacturing Co. organized to manufacture products from lignite coal; John Holmes, president and general manager;

Clifton Howell, vice-president; Frank Tomlinson, secretary.

D. C., Washington.—Herman Manufacturing Co., \$100,000 capital stock, incorporated by John O'Connell, Philip G. Afflock and Joseph F. Herman.

Fla., Fort McCoy—Syrup, Sugar, etc.—Fort McCoy Cane Products Co., capital stock \$2500, incorporated; John S. Grant, president; J. C. Hazard, vice-president; Louise Hazard, secretary; O. G. Stanbrough, treasurer.

Fla., Jacksonville—Macaroni.—Florida Macaroni Works, capital stock \$15,000, incorporated; Carmine Castellano, president-treasurer; Domenico Meccio, vice-president; Pantaleo Guipponi, secretary.

Fla., Jacksonville—Ice-cream, etc.—H. A. Haft Company, capital stock \$25,000, incorporated; H. A. Haft, president and manager; E. J. Ford, vice-president; E. B. Millam, secretary-treasurer; operates ice-cream factory; daily capacity, 1000 gallons.

Fla., Santa Rosa—Syrup.—Charles E. Cessna and Robert McCaskill organized company to build plant to manufacture cane syrup, etc.

Ga., Athens—Tannery.—Allen-Moss Tanning Co., capital stock \$25,000, incorporated by John D. Moss and W. C. Allen.

Ga., Augusta—Electric Belts, etc.—American Electrocure Co., capital stock \$50,000, incorporated by A. J. Taylor, A. A. Thomas and Charles Warren Davis.

Ky., West Point—Ice-cream.—William T. Jacobs of Letchfield, Ky., and Thurman Clayton of Louisville, Ky., will establish ice-cream factory; machinery purchased.

La., New Orleans—Sugar Factories.—Charles A. Farwell, president American Cane Growers' Association, wires Manufacturers Record: "Proposed to organize many of the 165 sugar factories of Louisiana into one company for diminishing operating expenses, manufacturing better quality sugar and molasses, and better distribution of products." It is stated new company will be known as Louisiana Sugar Cane Co. and be capitalized at \$60,000,000. Committee in charge of plan is as follows: J. P. Kock (chairman), Charles A. Farwell, Horace Wilkinson, John A. Pharr, J. Supple, Jules Godchaux, Jules M. Burguiere, F. B. Williams, John D. Minor, Jules J. Jacobs, B. A. Oxnard, M. Billeaud, Jr., J. L. Gaudet, L. M. Soniat and Myer Lemann. (This organization recently mentioned as contemplated.)

Md., Baltimore—Cigars.—Wertheimer Bros., 28 S. Paca St., purchased building and will equip for manufacturing cigars.

Md., Baltimore—Automobile Tires.—Dreadnaught Tire & Rubber Co., 1017 Munsey Bldg. (recently noted organized, authorized capital \$1,000,000), advises plans are not yet drawn for proposed buildings; contemplates erecting three-story 65x180-foot main building and 35x50-foot power-house of mill construction; install rubber-manufacturing machinery costing about \$30,000; date of receiving machinery bids not set; daily capacity, 300 to 500 tires, also tubes, etc. A. F. Gilbert, president; Wilmer Dunbar, vice-president; Walter E. Hill, secretary; C. P. Triplett, treasurer; H. E. Whitelock, manager. Mr. Dunbar is construction engineer.

Md., Baltimore—Gas and Electric Fixtures.—Metropolitan Lighting Co. incorporated by William E. Duncanson, Hampton Court, Baltimore; J. Quitman Lovell, Garrison, Md., and Charles W. Cullen, Georgetown, Del.

Md., Baltimore—Candy.—Lilly & Co. (15 W. Pratt St.), capital stock \$50,000, incorporated; lease building containing 5000 square feet floor space and install candy-making machinery, engine, boiler and ice plant; George C. Lilly, president; O. T. Shreve, vice-president; A. E. Lilly, secretary-treasurer.

Md., Baltimore—Showcases.—Reinle-Salmon Company, Stockholm and Warner Sts., will build two additional stories to present two-story factory, 40x112 feet.

Md., Cumberland—Biscuits.—National Biscuit Co. (F. W. Burroughs and John F. Wilson, local representatives), Deal Bldg., will erect building; 45x155 feet; general office, New York.

Md., Salisbury—Yachts.—Alonso Williams & Son purchased yacht building plant of Salisbury Marine Construction Co.; will improve and equip with electricity for power.

Mo., Carthage—Astra Products Co. organized with \$50,000 capital stock; W. P. Cutler of Columbia, Mo., is interested.

Mo., Festus—Bottles.—Festus Glass Co. (recently noted organized, \$40,000 capital stock) will erect 100x250-foot mill-construction building; proposals opened March 10;

install machinery with daily capacity 300 gross machine and hand blown bottles; Edward Kernish, president; H. S. Warrick, vice-president and manager; Chas. C. England, secretary; Chas. Grossman, treasurer. (See "Machinery Wanted.")

Mo., St. Louis—Brewing.—Mutual Brewing Co. increased capital stock from \$600,000 to \$700,000.

Mo., St. Louis—Gauges.—D. R. Vivion Manufacturing Co., capital stock \$20,000, incorporated by D. R. Vivion, W. A. Vivion and Wm. F. Rower; to manufacture Vivion gauge and cover attachment for corn and cotton planters, etc.

Mo., St. Louis—Bedding.—National Bedding Co., capital stock \$2000, incorporated by Nathan Moskovits, E. S. Moskovits, J. Price and M. Price.

N. C., Charlotte—Brooms.—J. B. Willson, Harmony, N. C. (recently noted as purchasing site), will establish factory with daily capacity of 25 dozen brooms. (See "Machinery Wanted.")

N. C., Charlotte—Shoes.—Charlotte Shoe Manufacturing Co., organized by Arthur Bonboy and associates; leased building at 103 W. Trade St., will remodel and equip for manufacturing and repairing shoes.

N. C., Winston-Salem—Tobacco.—R. J. Reynolds Tobacco Co. will increase capital stock from \$10,000,000 to \$20,000,000; will establish cigarette factory. (Full particulars lately noted.)

Okla., Blackwell—Glass.—W. J. Peelle of Anderson, Ind., is promoting erection of glass factory.

Okla., Guthrie—Railway Appliances.—Thomas Railway Appliance Co., capital stock \$100,000, incorporated by John W. Thomas of Kansas City, Mo.; J. R. Hamill, Fred W. Green, both of Guthrie, and others.

Okla., Enid—Baler and Seeder.—Broom Corn Baler & Seeder Co., capital stock \$100,000, incorporated by I. P. Cline, E. A. Butler and S. L. Cline.

Okla., Oklahoma City—Tires.—Severin Tire & Supply Co., capital stock \$10,000, incorporated by A. L. Severin, L. H. Severin and J. H. Eagen.

Okla., Sapulpa—Glass.—B. M. Van Orman, secretary Commercial Club, states arrangements are being made for removal to Sapulpa of plants of Sunflower Glass Co. of Coffeyville, Kans., and Cheyenne Glass Co. of Caney, Kans.; construction in Sapulpa before April 15. (Recently noted to be established as "Sapulpa Plate Glass Works.")

Okla., Valliant.—Corona Manufacturing Co., capital stock \$10,000, incorporated by R. S. Turner, W. E. Watkins, E. E. Harris and others.

Tenn., Paris—Toilet Articles.—Paris Toilet Co., capital stock \$15,000, incorporated by P. A. Aden, W. T. Warren, W. Province and others.

Tenn., Memphis—Riding Device.—Acme Riding Device Co., capital stock \$7500, incorporated by A. M. Morrison, J. S. White, John Moriarty and others; will install riding device in East End Park to cost \$20,000; contract awarded.

Tenn., Memphis—Chemicals.—Webster-Warneck Chemical Co. plans increasing capital stock from \$50,000 to \$100,000.

Tex., Dallas—Yeast.—The Fleischmann Company, capital stock \$15,000, incorporated by Frank H. Gilkey, Walter C. McConnell, James H. Rodas and others.

Tex., Palestine—Bottling.—C. O. Laumen, 407 John St., will not at present erect bottling plant recently reported.

Tex., Waco—Paper Boxes.—Southwestern Paper Box Co., capital stock \$50,000, organized with Oscar Myre, president; F. H. Houghland, vice-president-general manager; J. Herbert Peairs, secretary-treasurer.

Va., Richmond—Lime.—Vaño Lime Co., capital stock \$50,000, incorporated; A. G. Rogers, president; J. M. Lancaster, treasurer; L. H. Drew, secretary.

Va., Richmond—Inks, etc.—Ardelle Ink Co., John G. Dew, president, 36 N. Lombardy St., will lease building and install machinery for manufacturing acid and waterproof and printers' ink and stationers' supplies, etc. (Recently noted incorporated with \$25,000 capital stock.)

Va., Roanoke—Vinegar.—Roanoke Press, Preserving & Canning Co., Box 382, Roanoke, Philip Hamilton of 83 Jefferson St., Paterson, N. J., president, will erect factory in Roanoke county for manufacture of elder vinegar in cans and bottles. (See "Canning and Packing Plants.")

Va., South Boston—Tobacco.—Export Tobacco Co. will erect building.

W. Va., Parkersburg.—Imperial Confection-



ery Co. increased capital stock from \$10,000 to \$25,000; will increase capacity of plant.

W. Va., Parkersburg—Rigs and Reels.—Parkersburg Rig & Reel Co., D. B. Crawford, manager, contemplates building plant to manufacture rig and reel equipment for oil development.

W. Va., Wheeling—Ice-cream, etc.—Ohio Valley Cream & Supply Co., capital stock \$50,000, incorporated by James S. Paul, T. I. Harris, C. W. McGinnis and others.

### MOTORS AND GARAGES

Ga., Macon.—Macon Auto Co., capital stock \$6000, incorporated by C. F. Calhoun, J. P. Stubbs, W. E. Henry and others.

Ga., Savannah—Automobiles.—Griffith Auto Co., capital stock \$10,000, incorporated by C. M. Griffith and J. H. Brown.

Ky., Pineville—Motors.—Cumberland Motor Co., capital stock \$50,000, incorporated by N. J. Weller, A. W. Bryant, M. J. Moss and John A. Pitman.

Mo., Kansas City—Automobiles.—Ford Motor Car Co. will erect two additional stories to assembling plant and build annex; present structure, 80x420 feet.

Mo., St. Louis—Automobiles.—Entz Automobile & Battery Co., capital stock \$10,000, incorporated by T. B. Entz, Alice von S. Entz and Kenneth S. Walker, all of Kirkwood, Mo.

Mo., St. Louis—Garage.—Polar Wave Ice & Fuel Co. has purchased site at Olive St. and Grand Ave.; will erect building for offices, storage-rooms and garage.

N. C., Statesville—Garage.—N. W. Fox will erect garage on Center St.

N. C., Statesville.—Carolina Motor Co. will erect garage.

Tenn., Chattanooga—Automobiles.—Hirsch Motor Car Co., capital stock \$5000, incorporated by M. Hirsch, H. Hirsch, J. S. Hirsch and J. L. Levine.

Tenn., Lebanon—Garage.—H. C. Foutch will erect brick garage; awarded contract; purchased repair department of Lebanon Motor Car Co.

Tenn., Memphis—Automobiles.—Loeb Automobile Co., capital stock \$5000, incorporated by Henry Loeb, E. F. Goldsmith, Charles W. Loeb and others.

Tenn., Memphis—Automobiles.—Blomberg Automobile Co., capital stock \$30,000, incorporated by Robert York, P. A. Gates, L. H. Wise and others.

Tex., Galveston—Automobiles.—Galveston Motor Car Co., capital stock \$3000, incorporated by R. Carter, Mrs. Lora Carter and G. G. Lescher.

Tex., Victoria—Garage.—Park Garage (recently noted incorporated, \$10,000 capital stock, by John Frazer and others) has installed machinery needed at present. (See "Machinery Wanted.")

Va., Richmond—Garage.—Irving Kaufman, Manie Bloch and C. H. Raab & Co. have plans by and awarded contract to Aubrey Hunt, Richmond, to erect garage; 60x100 feet; four-ton elevator; cost \$19,000. (Raab & Co. recently noted under "Stores" as to erect building.)

Va., Roanoke—Automobiles.—Hunter Motor Co., capital stock \$15,000, incorporated; Jos. L. Hunter, president; T. D. Hunter, vice-president; W. E. Hunter, secretary-treasurer.

### ROAD AND STREET WORK

Ala., Birmingham.—City will construct about 75,000 square yards street paving instead of "55,000" yards as recently noted; receives bids March 18 on asphalt, bitulithic, concrete, asphaltic concrete, bituminous concrete or wood blocks; Walter G. Kirkpatrick, City Engineer. (See "Machinery Wanted.")

Ala., Birmingham.—City Commission will pave 24th St. from Eighth to Twelfth Ave. and Twelfth Ave. from 24th and 32d St.

Ala., Opelika.—City awarded contract to J. W. Brownell of Memphis, Tenn., for 40,000 to 50,000 square yards of pavement and 3000 cubic yards excavation; S. S. Black, Clerk. (Call for bids lately noted.)

Ala., Tuscaloosa.—City Commission authorized \$80,000 bond issue to pave Greensboro Ave. and Broad St.; total cost estimated at \$100,000.

Ark., Little Rock.—City will pave portions of various streets; George A. Stratman, secretary; bids received March 24; Henry Levinson, engineer in charge. (See "Machinery Wanted.")

Ark., Marianna.—City awarded contract for 2000 yards of street improvements. Address The Mayor.

Ark., Pine Bluff.—City will pave Baroque

and Main Sts. and West Second Ave. in Improvement District No. 32. Address The Mayor.

Fla., Arcadia.—City will expend \$40,000 for construction of brick pavements. Address The Mayor.

Fla., Tampa.—Board of Public Works instructed City Clerk to advertise for bids for laying 200,000 square yards brick pavement and 10 linear miles granite curb.

Ga., Dublin.—City will vote on issuance of \$30,000 bonds for street improvements, curbing, etc. Address The Mayor.

Ga., Washington.—City, L. D. Faver, Mayor, receives bids until April 2 for construction of recently-noted 20,000 square yards street paving; vitrified brick, bitulithic, granitoid, wood block, sheet asphalt and asphaltic concrete considered, with drainage, etc.; engineer, H. S. Jaudon Engineering Co., Box 582, Savannah, Ga. (See "Machinery Wanted.")

Ky., Louisville.—Board of Public Works awarded contract for vitrified-block street paving aggregating \$83,000 to L. R. Figg Company, G. W. Gosnell & Co. and Henry Bickel Company; for granitoid sidewalks to G. W. Younger & Co. and American Concrete Construction Co.; all of Louisville.

Ky., Munfordville.—Hart county defeated \$300,000 bond issue for road construction. Address County Commissioners. (Recently mentioned.)

Ky., Pineville.—Bell County Commissioners postponed date of election from March 4 (lately stated) to May 13 to vote on \$500,000 bond issue to construct macadam roads.

La., Natchitoches.—City will pave with gravel two blocks of Washington St., Jefferson St. from Toulon St. to Texas & Pacific Railroad, and Pavle St. from Washington and 8th Sts.; about 20,000 square yards; bids received until April 1; George W. Kile, Mayor. (Bids previously noted to be received in March. See "Machinery Wanted.")

La., Shreveport.—City voted \$101,500 bond issue to connect paved streets with parish gravel roads and gravel suburban streets, construct storm sewers and purchase Cross Lake lands for water reservoir. Address The Mayor. (Recently mentioned.)

La., St. Martinville.—St. Martin Parish Police Jury is considering \$100,000 bond issue for road construction.

Md., Baltimore.—State Roads Commission, William L. Marcy, secretary, 534 N. Howard St., Baltimore, receives bids until March 27 for building 11 sections of State highway in various counties, aggregating about 21.55 miles long; bids upon blank form in book of specifications; latter furnished by commission upon application and payment of \$2 for each section; blueprints of each section furnished at 25 cents for each half mile. (See "Machinery Wanted.")

Md., Baltimore.—State Roads Commission, 534 N. Howard St., awarded contracts for road construction in various counties amounting to \$234,478.02: Elder Paving & Contracting Co., 524-526 Law Bldg., at \$37,796.05, to improve York Rd. from city line to Lyman Ave., 1.33 miles; four-inch concrete base and four-inch bitulithic top; 26-foot roadbed, with 2-foot concrete gutter and curb on west side and concrete shoulder on east side next to car tracks; contract for road from Lyman Ave. to Towson, 2.82 miles, not awarded; Carozza, Levezza & Carozza of Baltimore, at \$16,927.40, road from Cranberry to Mexico, Carroll county, 1.1 miles, macadam; Juniata Paving Co. of Philadelphia, Pa., at \$19,899, road from Locust Grove to Glens, Kent county, two miles, macadam; Allen Engineering & Construction Co. of Newark, N. J., at \$47,506.35, road from Elkton to Chesapeake City, Cecil county, 4.80 miles, macadam; McGuire Contracting Co. of Norfolk, Va., at \$43,188.99, P. B. road in Prince George's county, and at \$16,636.38, road along District of Columbia line to Meadows, 4.71 miles. (Call for bids lately noted.)

Md., Frederick.—City, J. Ed. Schell, Mayor, will construct about 5500 square yards paving, 1000 linear feet curbing and 500 linear feet 6 to 12-inch sewers; bids received until March 26; E. C. Crum, City Engineer. (See "Machinery Wanted.")

Miss., Magnolia.—Pike County Supervisors authorized \$200,000 bond issue for road construction in fourth district.

Miss., Yazoo City.—Yazoo County Commissioners postponed date of election from March 1 (lately stated) to May 2 for voting on \$300,000 bond issue for road construction. (Recently mentioned.)

Mo., Poplar Bluff.—City's plans for street paving will aggregate expenditure of about \$100,000; E. C. Thomas, engineer in charge; not ready for bids. (Recently noted.)

N. C., Lexington.—Davidson county votes April 22 on \$300,000 bond issue to construct roads. Address County Commissioners.

N. C., Lincolnton.—Lincoln county voted \$200,000 bond issue for road construction; desires correspondence with engineers and contractors for grading sand-clay and macadam roads; J. A. Abernethy, chairman of board. (See "Machinery Wanted.")

N. C., Wilson.—City votes April 15 on \$80,000 bond issue to improve streets. Address The Mayor. (Recently mentioned.)

Okla., Durant.—City will expend \$42,000 for construction of 13 blocks asphaltic concrete pavement, with curb and gutter; paving 36 feet wide; W. P. Danford, City Engineer; bids opened. (Recently noted.)

S. C., Florence.—Atlantic Coast Line Railroad (E. B. Pleasant, chief engineer, Wilmington, N. C.) will park plaza and construct concrete drives and walks.

Tenn., Clarksville.—Montgomery county is considering \$300,000 bond issue for road construction. Address County Commissioners.

Tenn., Centerville.—Hickman county votes March 29 on \$200,000 bond issue for road construction. Address County Commissioners.

Tenn., Johnson City.—City awarded contract to Cleveland Trinidad Paving Co., Cleveland, O., for construction of several miles of paving; George W. Cooke, commissioner and engineer. (Recently noted.)

Tex., Abilene.—City awarded contract to E. M. Eby of Kansas City, Mo., for 75,000 square yards asphalt macadam street paving; \$30,000 bond issue authorized; H. J. Bradshaw, City Engineer. (Call for bids lately noted.)

Tex., Beaumont.—City will construct about 755½ yards paving on Neches St.; five-inch concrete foundation; vitrified brick, asphalt, bitulithic, Uvalde rock asphalt, creosoted pine block or other material; also 490 linear feet concrete curbing; bids filed by 10 A. M. March 18 with J. G. Sutton, City Secretary. (See "Machinery Wanted.")

Tex., Greenville.—Hunt County Commissioners awarded contract to Cobb & Gregory of Dallas, Tex., to build one and one-quarter miles macadamized road.

Tex., Hamilton.—City voted to construct sidewalks in residence section. Address The Mayor.

Tex., Orange.—City voted \$20,000 bond issue for street improvements. Address The Mayor. (Recently mentioned.)

Va., Lovingson.—Magisterial District of Nelson county voted \$35,000 bond issue to construct macadam road from Arrington to Roseland, 10 miles. Address County Commissioners.

Tex., Walnut Springs.—City votes April 15 on \$10,000 bond issue for street improvements. Address The Mayor.

Va., Richmond.—Administrative Board petitioned City Council to authorize \$1,000,000 bond issue to improve streets; Charles E. Bolling, City Engineer.

W. Va., Roncoveite.—City is considering \$5000 bond issue to pave sections of Monroe Ave., Chestnut and Main Sts. and Frankford Rd. Address The Mayor.

W. Va., Wheeling.—City will curb and pave certain streets; stone and concrete curb; brick and sheet asphalt or bitulithic on concrete foundation paving; bids received until March 27; plans, etc., with City Engineer, C. B. Cooke, City Bldg. (See "Machinery Wanted.")

### SEWER CONSTRUCTION

Ark., Clarksville.—Board of Improvement, Sewer District No. 4, will construct sanitary sewer system and disposal plant; material consists of 23,250 feet 8-inch to 12-inch vitrified pipe, 62 manholes, 10 flush tanks and settling tank; D. Ward Dunlap, secretary; Winters & Dove, engineers, Fort Smith, Ark.; bids received until March 28. (See "Machinery Wanted.")

Ark., Wynne.—City awarded contract to N. S. Sherman Machine & Iron Works of Oklahoma City, Okla., at about \$70,000 to improve sewer system, water-works and electric-light plant; construct 5630 feet 15-inch, 3050 feet 12-inch, 2650 feet 10-inch, 16,000 feet 8-inch and 13,200 feet 6-inch sewer pipe; R. C. Huston & Co., consulting engineers, 630 Exchange Bldg., Memphis, Tenn. (Call for bids lately noted.)

Fla., Sarasota.—City's plans for sewer system and drainage (previously noted) includes 2480 feet 8-inch, 4650 feet 6-inch, 2455 feet 4-inch class "B" cast-iron water mains and 5700 feet 2-inch galvanized service pipe; 5 tons hydrants; 21 fire hydrants; 4 8-inch, 4 6-inch, 10 4-inch and 12 2-inch gate valves; also drainage ditch 3000 feet long and requiring 7000 yards excavation; bids received

until March 25; W. A. Summer, chairman Board of Public Works. (See "Machinery Wanted.")

Fla., Tampa.—Board of Public Works has, it is reported, awarded contract to E. W. Parker at about \$37,000 to construct reinforced concrete storm drains in Hyde Park. (Call for bids lately noted.)

Ga., Dublin.—City will vote on issuance of \$10,000 bonds for sewers. Address The Mayor.

Ky., Madisonville.—Board of Public Works, W. J. Dulin secretary, will expend \$40,000 for construction of sewer system; plans not complete; C. H. Jenks, engineer, Union City, Tenn. (Recently noted to let contract April 2.)

La., Shreveport.—City voted bond issue to construct storm sewers. Address The Mayor. (See "Road and Street Work.")

Md., Baltimore.—City awarded contract to Carozza, Levezza & Carozza at \$92,697.65 to construct sanitary sewers.

Md., Frederick.—City, J. Ed. Schell, Mayor, will construct about 500 linear feet 6 to 12-inch sewers, in connection with paving; bids received until March 26. (See "Road and Street Work.")

N. C., Charlotte.—City will arrange to extend sewer system to North Charlotte, expending \$25,000 to \$35,000; executive board will have preliminary surveys made and invite bids for construction; funds provided for out of \$150,000 bond issue previously authorized; Joseph Firth, City Engineer.

N. C., Charlotte.—City will construct certain sewers; about 13,950 feet 18 to 8-inch terra-cotta pipe, with manholes and flush tanks; Joseph Firth, City Engineer; A. H. Wearn, City Clerk; bids received by Executive Board until March 19. (See "Machinery Wanted.")

S. C., McColl.—City votes March 31 on \$20,000 bond issue for sewer system. Address The Mayor. (Recently mentioned.)

S. C., Winnsboro.—City contemplates installing sewer system and water-works. Address The Mayor.

Tenn., Chattanooga.—City will construct pipe sewer on A St. from 9th to 10th St., and on 10th from Georgia Ave. to A St.; bids received until March 15; A. N. Sloan, Commissioner Department of Streets and Sewers. (See "Machinery Wanted.")

Tenn., Nashville.—City awarded contract to T. I. Curtis & Co. at \$2655 to construct 2076 feet sewer in Ninth Ave.

### TELEPHONE SYSTEMS

Ark., Paris.—Logan County Telephone Co., recently noted incorporated (under Ark., Scranton), J. R. Grounds, manager, states has established exchanges at Scranton and Ratcliff; now building connecting exchange at Paris.

Ga., Alston.—City granted franchise to Stanford Bros. of Vidalia, Ga., for telephone system; will build exchange.

Ky., Elletts.—Taylor Telephone Co., incorporated by J. W. Taylor, J. H. Browning, Vance Taylor and others.

N. C., Reidsville.—S. S. Wilson will construct telephone system extending six miles from Reidsville and connecting with exchange of Southern Bell Telephone & Telegraph Co.

Okla., Tahlequah.—Metory Telephone Co., incorporated by John E. Thompson, Ross Daniels and Louis Myers.

Tenn., Nashville.—K. L. Bernard of New York and associates will, it is reported, petition City Council to grant franchise for telephone system.

Tex., Frankston.—Frankston Telephone Co., capital stock \$4500, incorporated by M. E. Cook, S. G. Jones and J. H. Bragg.

Tex., Kurten.—Company organized to construct telephone system; Rev. J. J. Kalsiske, president; Dr. W. G. Drummond, first vice-president; William Montheil, second vice-president; Will Payne, corresponding secretary; August Prinzel, treasurer.

Tex., Lakeview.—Lakeview Telephone Co., capital stock \$1000, incorporated by I. W. Thomason, W. H. Youngblood and H. H. Mullis.

### TEXTILE MILLS

Ala., Athens.—Cotton Cloth.—Fulton Cotton Mill Co. will add roving machinery, warpers, looms, etc.; has awarded contract.

Ala., Leeds.—Hosiery.—Beecroft & Hatton, Birmingham, Ala., are reported as to establish knitting mill with daily capacity 1200 pairs hose.

Ga., Roswell.—Cotton Yarn.—Roswell Manufacturing Co. will add 2000 spindles; has purchased this machinery.

Ga., Royston-Cotton Goods.—J. F. Lee is interested in plan to build cotton mill.

Ga., Savannah-Bagging.—H. A. Cook of Charlotte Bagging Co., Charlotte, N. C., proposes organizing company to build jute cotton bagging mill; contemplates investing \$7500 for location and building, \$10,000 for working capital and \$25,000 for machinery.

N. C., China Grove-Knit Goods.—A. L. Patterson and J. S. Edard, Albemarle, N. C., will build knitting mill.

N. C., Burlington—Hosiery.—Whitehead Hosiery Mills Co. plans erection of additional mill; building to be of brick construction and three to four stories high; will increase capital to \$100,000.

N. C., Chapel Hill—Hosiery.—Blanche Hosiery Mills Co., capital stock \$100,000, incorporated by W. E. Lindsey, Blanche G. Lindsey and W. S. Robertson.

N. C., Cornelius—Cotton Yarn.—R. J. Stough plans organization of company to build cotton mill.

N. C., Lenoir—Cotton Yarn.—Eureka Manufacturing Co. will install dyeing plant for yarns.

S. C., Anderson-Cotton Yarn.—Conneross Yarn Mill will build two-story 100x50-foot addition; also 25x50-foot two-story picker-room; mill construction; cost \$15,000; install machinery, purchased at cost of \$15,000; to manufacture 1000 bales cleaned cotton mill waste annually; daily capacity, 1500 pounds manufactured product.

Tenn., Lawrenceburg—Hosiery.—J. W. Martin, Nashville, Tenn., will establish hosiery mill; has leased building; later will erect 100x40-foot brick structure.

W. Va., Webster—Blankets.—Webster Woolen Mill Co. will expend \$15,000 to \$20,000 to erect buildings for reconstructing recently-noted plant; brick structure; install machinery costing about \$30,000; to include 1440 spindles, 20 looms, 125 to 150 horsepower engine, etc.; daily capacity, 240 pairs blankets. (See "Machinery Wanted.")

### WATER-POWER DEVELOPMENTS

Mo., Galena.—William H. Standish of Aurora, Mo., and associates will construct hydro-electric power plant on James River.

N. C., Whitney.—Southern Aluminum Co. is reported to have awarded contract to B. H. Hardaway of Columbus, Ga., for \$2,000,000 dam, of concrete construction, to develop 45,000 electrical horse-power for use in manufacturing aluminum; dam to be 1000 feet long and at least 150 feet high, raising water at least two feet over present uncompleted dam; location in Yadkin River seven miles below uncompleted dam. (See "Miscellaneous Factories.")

S. C., Spartanburg.—South Carolina Power, Light & Railways Co. decided to locate hydro-electric plant at Palmer Shoals, on Broad River; develop 15,000 horse-power; has begun improvements at steam power plant in city, developing 5000 horse-power additional; will also extend gas mains. (Recently mentioned.)

### WATER-WORKS

Ark., Clarksville.—Board of Improvement, Water-works District No. 3, D. Ward Dunlap, secretary, will construct water-works and install materials; bids received until March 28; Winters & Dove, engineers, Fort Smith, Ark. (See "Machinery Wanted.")

Ark., Pine Bluff.—Pine Bluff Hotel Co. will install water and electric-light plant in hotel now in course of construction; awarded contract for machinery; cost \$12,500.

Ark., Wynne.—City awarded contract to N. S. Sherman Machine & Iron Works of Oklahoma City, Okla., at about \$70,000 for improvements to water-works, sewer system and electric-light plant; will drill artesian well; R. C. Huston & Co., 630 Exchange Bldg., Memphis, Tenn., are consulting engineers. (Call for bids lately noted.)

Fla., Cedar Keys.—Adolph Berli contemplates, it is reported, constructing water-works, etc. (See "Ice and Cold-Storage Plants.")

Fla., Sarasota.—City's plans for water-works (previously noted) include 1890 feet 12-inch, 5742 feet 10-inch, 3857 feet 8-inch, 7529 feet 6-inch terra-cotta sewer pipe, 40 man-holes and 4 flush tanks; bids received until March 25 for furnishing and laying above material; W. A. Sumner, chairman Board of Public Works. (See "Machinery Wanted.")

Ga., Atlanta.—Water Board adopted report of W. Zode Smith, general manager, and petitioned Council to authorize installation of two pumps for water-works, one to have capacity of 20,000,000 gallons and other 10,000,000-gallon rotary pump; bids for latter to be opened March 20.

Ga., Cartersville.—City Commissioners awarded contract to Jordan-Stewart Company of Atlanta, Ga., at \$13,947.73 to complete reservoir; reinforced concrete base; excavation completed; plans by Solomon-Norcross Company of Atlanta, Ga.

Ga., Vidalia.—City votes April 5 on \$15,000 bond issue for improvements to water-works and electric-light plant. Address The Mayor.

Ky., Louisville.—City plans to install six additional settling tanks at Crescent Hill filtration plant, doubling capacity; present plant contains six tanks with capacity of 42,000,000 gallons filtered water daily; estimated cost \$300,000; Theodore A. Lelsen, chief water-works engineer, is in charge of preparation of plans and specifications. (Recently mentioned.)

Ky., Madisonville.—Board of Public Works, W. J. Dulin, secretary, will expend \$75,000 to construct water-works; pump-house to cost \$1000; dam, conserving 8,000,000 gallons of water, to contain about 25,000 cubic yards concrete spillway and wood core; steel tank for gravity pressure; 10 miles 4-inch, 6-inch, 8-inch and 10-inch cast-iron water mains; probably open bids about April 2 for tank, cast-iron mains and laying same, and about April 16 for building dam; engineer, C. H. Jenks of Union City, Tenn.; plans not completed. (Recently noted to let contract April 2.)

La., Shreveport.—City voted bond issue to purchase Cross Lake lands for water reservoir. Address The Mayor. (See "Road and Street Work.")

Md., Baltimore.—Board of Estimates authorized Water Board to proceed with its plans for installation of filtration plant and if necessary to ask for additional loan to raise Loch Raven dam to originally intended height of 237 feet; dam as now being built will be 192 feet high. Ezra B. Whitman, Water Engineer, City Hall, estimates cost of dam 192 feet high and filtration plant at \$4,943,000 and of dam 237 feet high and filtration plant at \$7,061,645.

Miss., Georgetown.—City will vote on \$7500 bond issue to construct water-works; artisan well. Address The Mayor.

N. C., Asheville.—E. W. Grove, owner Grove Park Inn, contemplates erecting reservoir with capacity of 250,000 gallons.

N. C., Elkin.—City will vote in 90 days on bond issue for construction of water-works; R. J. Lewellyn, Mayor.

N. C., Selma.—City will issue \$5000 bonds for completion of water and electric-light systems; J. A. Mitchener, Mayor.

Okla., Oklahoma City.—Hiram Phillips of St. Louis, Mo.; J. W. Alford of Chicago, Ill., and J. W. Billingsly of Houston, Tex. (engineers prospecting for water supply), submitted report to City Commission recommending that water be secured from North Canadian River above El Reno by gravity canal and stored in reservoir near water-works; planned to construct silt-settling basins; canal would convey water 27 miles, 125 cubic feet per second, to three miles west of water-works to reservoir; latter would cover 688 acres, have capacity of 10,200 acre feet, with average depth of 18 feet, and involve construction of dam 60 feet high and 240 feet long; from this reservoir water could be conveyed by reinforced concrete aqueduct to present water plant and there be filtered for domestic use; elevation of water surface of reservoir be about 90 feet above water in North Canadian River below dam at present pumping plant, and by this head contemplated to develop water-power sufficient for most of city pumping; total cost, \$1,525,500.

S. C., McColl.—City votes March 31 on \$30,000 bond issue to construct water-works. Address The Mayor. (Recently mentioned.)

S. C., Winnsboro.—City contemplates installing water-works and sewerage system. Address The Mayor.

Tenn., Henderson.—City votes March 28 on \$50,000 bond issue to construct water-works or electric-light system, or both. Address The Mayor.

Tenn., Jackson.—City Council authorized \$25,000 bond issue to improve water-works; will lay additional mains, increase pumping capacity, etc. Address The Mayor.

Tex., Jacksonville.—City will extend water-works; estimated cost \$30,000 to \$40,000. Address The Mayor.

Tex., Mercedes.—City Council is considering granting franchise to S. A. Robertson of San Benito, Tex., to operate water-works and electric-light plant; proposes to purchase and extend local plants.

Tex., New Boston.—City engaged Nagel & Peterson, Muskogee, Okla., as engineers to prepare plans for water-works to supply 1500 people; erect small power-house; date of

opening bids not set; cost \$15,000; O. B. Pirkey, Mayor. (Bond issue recently noted voted.)

Tex., Spur.—City, Geo. S. Link, Mayor, has plans by Jeff. D. Reagan for construction of recently-noted water-works; daily capacity 165,000 gallons; reservoir capacity 825,000 gallons; erect \$500 ironclad building; date of opening bids not set. Address Oscar Jackson.

### WOODWORKING PLANTS

Ala., Mobile—Clothespins.—A. E. Dickson, Box 948, states recently-noted plant will be located at Houston, Tex. (See Tex., Houston.)

Ark., Benton—Staves.—E. A. Parker and associates will build mill.

Ark., McGhee—Cooperage.—American Cooperage Co. will construct cooperage plant.

La., Port Barre—Shingles.—A. Romero will build shingle mill on Bayou Courtableau; daily capacity 30,000 shingles.

Mo., Dexter—Chairs.—C. O. Biggs Chair Manufacturing Co., capital stock \$8100, incorporated by C. O. Biggs and J. P. Smith.

Mo., Hornersville—Shingles.—Griffith Shingle Co., J. W. Trieschman, president, Paragould, Ark., will operate cypress shingle plant of 70,000 daily capacity. (Previously noted incorporated under Ark., Paragould, with \$5000 capital stock.)

Mo., Morehouse—Staves, etc.—Himmelsberger-Harrison Lumber Co. will build plant to manufacture staves, hoops and barrel heads; also install drykiln equipment for drying stock.

Mo., St. Louis—Furniture.—Scarritt-Comstock Furniture Co. has leased building and will install machinery for production of fumed oak; will be electrically equipped.

Tenn., Dyersburg—Staves.—Fields-Henning Stave Co., capital stock \$6000, incorporated by J. J. Fields, A. J. Henning, J. G. Latta and others.

Tex., Alto—Crates.—Alto Gin & Crate Co., G. W. Hughes, manager, Box 180 (recently noted incorporated), will operate plant with woodworking capacity of 4000 crates daily; machinery installed. (See "Cotton Compresses and Gins.")

Tex., Houston—Clothespins.—A. E. Dickson, Box 948, Mobile, Ala., advises that Dickson Manufacturing Co. will establish plant to manufacture 4-inch round-headed clothespins; capacity 1500 gross daily; open proposals about May 1 for erection of 100x150-foot fireproof building, also on electrically-operated machinery costing about \$5000. (See "Machinery Wanted.")

Va., Altavista—Cedar Chests.—Standard Red Cedar Chest Co. increased capital stock from \$25,000 to \$100,000.

### BURNED

Ala., Birmingham.—S. S. Lanier's residence at 2344 Pawnee Ave.

Ala., Glencoe.—Baptist church; loss \$2500. Address The Pastor, Baptist Church.

Ala., Jonesboro.—Dan Houston's residence.

Ala., Konxwood.—C. A. Atkenson's store.

Ala., Russellville.—Mattie Wilson Cox's residence.

Ala., Tuskegee.—Opera-house owned by Dr. F. M. and B. M. Johnston; loss \$7500.

Ark., Childester.—Childester Mercantile Co.'s store; loss about \$16,000.

Ark., Hot Springs.—Matter Bros.' Oriental Store and other buildings.

Fla., Key West.—Chicago House, owned by Nestor Reelo; brick building, owned by Jefferson B. Browne; total loss about \$15,000.

Fla., Ocala.—Frame buildings owned by Mrs. T. H. Wallis, loss \$5000; building occupied by Harrell-Johnson Company, loss \$10,000.

Ga., Arlington.—Dr. W. E. Saunders' building damaged; loss \$4000.

Ga., Atlanta.—Newsom Storage Co.'s annex at 46 Courtland St.; loss \$20,000.

Ga., Davisboro.—Residences of G. T. Horton, W. G. Bailey, O. F. Downs, F. Armstrong and H. T. Downs; loss \$7000; also Central of Georgia's section-house.

Ga., Toccoa.—Haddock Inn at Haddock Falls, occupied by Toccoa Falls Institute; loss \$5000.

Ga., Union Point.—Union Point Oil Co.'s cottonseed-oil mill; loss \$50,000.

Ky., Burkesville.—Burkesville Banner Publishing Co.'s plant; loss \$1500.

Ky., Mayfield.—Amos Hicks' residence.

Ky., Kevil.—Julian Reeves' residence; loss \$3000.

Ky., Paducah.—Fletcher Terrell's residence; loss \$8000.

Ky., Paris.—Parochial school; loss \$5000. Address Parochial School Trustees.

Ky., Russellville.—S. A. Bass' residence; loss \$9000 to \$10,000.

Ky., Seabree.—J. D. Hawkins' store and dwelling.

Ky., Thomson.—A. W. Stofor's residence; loss about \$7000.

La., Farmersville.—W. J. Turnage's store; loss \$17,000.

La., New Orleans.—The Fair, Ltd., building, structure owned by Mrs. M. Lehmann and C. L. Keppler, loss \$5000; C. L. Keppler's drug store building, loss \$5000; Otto Swope's building, loss \$5000; The Fair, Ltd., warehouse at 1835-37 Euterpe St., loss \$7000.

La., New Orleans.—A. H. White Building Material Co.'s warehouse; loss \$7000.

La., Shreveport.—Louisville Railway & Navigation Co.'s office building; loss \$100,000.

Md., Rockville.—Barn and carriage-house owned by Zadoc Magruder estate; loss \$3500.

Md., Pikesville.—Thomas Carter's residence in Druid Ridge Cemetery.

Md., Upper Marlboro.—Benjamin N. C. Bowie's residence.

Miss., Grace.—L. C. Dulaney's store, loss \$5000; H. Danzig's store, loss \$12,000.

Miss., Grenada.—Central Hotel, owned by W. B. Hoffa; loss \$15,000.

Miss., Laurel.—Dr. T. E. Brent's dwelling; loss \$3000.

Miss., Taylorsville.—Residence owned by Mrs. Alice Myer of Ellisville, Miss.; loss about \$4000.

Mo., Clinton.—Methodist Episcopal Church South, loss \$3000. Address The Pastor, Methodist Episcopal Church South.

S. C., Blaney.—T. W. Watson's building; loss \$3500.

N. C., Elizabeth City.—Foreman-Blades Lumber Co.'s sawmill and two drykilns.

N. C., Elizabethtown.—Virginia-Carolina Lumber Co.'s plant at Berwick, three miles from Elizabethtown.

N. C., Goldsboro.—W. H. Winstead's tobacco factory; loss \$100,000.

N. C., Maxton.—Builders' Manufacturing Co.'s plant partially destroyed; loss about \$4000.

N. C., Lumberton.—Philadelphus High School; J. R. Poole, county superintendent of education.

N. C., Roxboro.—Farmers' warehouse, operated by Tilley & Ashley; loss \$3000.

N. C., Washington.—W. F. Zirkle's residence and two dwellings owned by L. O. Mallory, all at Kenilworth; loss \$7500.

N. C., Winston-Salem.—Climax Barber Shop, loss \$4000; O'Hanlon Drug Co.'s store damaged, loss several thousand dollars.

Okla., Grove.—Hotel Huckins.

Okla., Supply.—Mr. Holmes' residence, Gem Restaurant and other buildings; total loss, \$10,000.

S. C., Greenville.—Joseph A. McCullough's residence at 218 Broad St.; loss \$5000.

Tenn., Dickson.—W. E. Hutton & Co.'s store; J. E. Tidwell's grocery; loss \$15,000.

Tenn., Bristol.—W. H. Dickson's residence; loss about \$4000.

Tenn., Nashville.—S. H. Kress & Co.'s Fifth Ave. store damaged; loss \$5000; main office 396 Broadway, New York.

Tenn., Ooltewah.—James county courthouse; loss about \$10,000. Address County Commissioners.

Tenn., Trezevant.—Trezevant Hotel, owned by W. L. Morris; loss \$10,000.

Tex., Corpus Christi.—Juan Gonzalez's four cottages; loss \$4000.

Tex., Crockett.—John Bruton's residence; loss \$3000.

Tex., Dallas.—Mrs. George W. Poynter's residence at 3817 Ross Ave.; loss \$11,000.

Tex., Del Rio.—John R. Billings' residence; loss \$2000.

Tex., Falfurias.—The Chicago Store; Trevino & Trevino's store; Miller bakery; Lucinda Vargar's restaurant; Dixie moving-picture theater.

Tex., Fort Worth.—G. W. Haltom's residence damaged; loss \$5000.

Tex., Florence.—Florence Mercantile Co.'s warehouse.

Tex., Grapeland.—W. H. Lively's store; D. N. Leaverton's store; J. B. Selkirk's store; M. L. Clewis' building; Guarantee State Bank; W. R. Wherry's store; A. S. Porter's drug store; George E. Darsey's store; Goodson Hotel; S. T. Anthony's store; Lively & Caskey's market; Murdock Restaurant; H. C. Bush's building.



Tex., Groveton.—High school; loss about \$25,000. Address The Mayor.

Tex., Houston.—Grunewald Hotel building damaged (principally to elevator equipment); loss \$5000.

Tex., McKinney.—Missouri, Kansas & Texas Railway Co.'s freight depot; loss about \$1000; S. B. Fisher, chief engineer, St. Louis, Missouri.

Tex., Patito, R. F. D. from Lipan.—Porter & Turpin's cotton gin; loss \$4000.

Tex., Smithville.—Shadbolt Hotel, loss \$10,000; M. M. Turney's lumber office, loss \$12,000.

Tex., Waco.—J. F. Horne's building; Welbush Bldg.; Cozy Theater, owned by A. M. Jacobs, loss \$10,000; Breucsted Bldg. damaged; total loss about \$200,000.

Va., Brian.—Decker Grant's residence.

Va., Crystal Springs.—Major J. H. Sands' residence; loss \$8000.

Va., Hallwood.—John W. Taylor's store and warehouse; loss \$10,000.

Va., Louisa.—Mrs. Beverly Ragland Fox's residence.

Va., Norfolk.—Walters Building, occupied by Young Men's Italian Association and Hub Clothing Co.; loss \$75,000.

Va., Norton.—Norton Coal Co.'s commissary; loss \$20,000.

Va., Richmond.—Hare, Robinson & Hughes Company's planing mill and lumber shop at 15th and Short Leigh Sts.; loss \$25,000.

Va., South Boston.—Big Four Warehouse Co.'s stable; E. N. Black's laundry.

### WRECKED BY EXPLOSION

Tex., Lufkin.—Houston East & West Texas Railway's depot; loss \$150,000; W. G. Van Aleck, general manager, Houston, Tex.

W. Va., Sistersville.—Davenport gasoline station of Carter Oil Co.

## BUILDING NEWS

### BUILDINGS PROPOSED

#### APARTMENT-HOUSES

D. C., Washington.—Kennedy Bros., 1334 H St. N. W., will erect apartment-house at 17th St. and Park Rd.; four stories; fireproof; 153x100 feet; 12,000 square feet ground area; light gray tapestry brick trimmed with terra-cotta; 40 two to five-room apartments, 16 of which will have sleeping porches; enclosed fire escapes; tiled flooring and halls; cost \$150,000; plans and construction by owner.

Fla., Jacksonville.—D. L. Rathbone will erect apartment-house on Market St.; four four-room apartments; hot-water heat from central plant, which will also furnish heat and water for residence and another apartment-house now in contemplation.

Fla., Tampa.—A. H. Johnson prepared plans for apartment-house on Grand Central Ave. near Parker St.; four four-room apartments; cost \$7000.

Fla., Tampa.—Jose Franquiz, Ybor City, Ind. Sta., Tampa, will erect apartment-house.

Ga., Atlanta.—R. H. Caldwell, Jr., has plans by A. F. N. Everett, 508 The Grand, Atlanta, for apartment-house; six apartments; cost \$15,000.

Ga., Atlanta.—Dr. W. E. Lambright opens bids March 20 to erect apartment-house; three stories; 16 apartments; brick; steam heat; electric lighting; tile, tar and gravel roof; cost \$45,000; plans by A. F. N. Everett, 508 The Grand, Atlanta. (Recently noted.)

Ga., Atlanta.—W. L. and John O. Dupree leased site at Juniper and 3d Sts. and are reported as to erect apartment-house on 3d St. frontage.

Ga., Macon.—C. P. Lucas will expend \$3000 to erect apartment-house; 36½x50 feet; 12 rooms; frame; hot-water heat; gas and electric lighting; galvanized shingle roof; plans and construction by owner. (Recently noted under "Dwellings.")

Ga., Savannah.—D. L. Bland will erect two-story tenement-house.

La., New Orleans.—Metropolitan Building Co. will erect two-story apartment-house on Sycamore St.; brick or stucco; also double residence on Palmyra St.

La., New Orleans.—C. Lee McMillan will erect two apartment-houses; stucco exterior; red tile roofs; two apartments each.

Mo., St. Louis.—Jacob Rubin will erect two-story tenement-house at 2344-46a Virginia St.; cost \$7000.

Mo., St. Louis.—John Belser will erect two-story tenement-house at 3152-54 Arsenal St.; cost \$6700.

Mo., St. Louis.—H. W. Faber will erect two-story tenement-house at 3886 Humphrey St.; cost \$5000.

Mo., St. Louis.—Anton Degenhardt will erect three two-story tenement-houses at 5045-8-9 Louisiana St.; cost \$9600.

Mo., St. Louis.—C. V. Prost will erect four-family apartment-house on Wells Ave.

Mo., St. Louis.—Gustave Schurman will erect two-story tenement-house at 4829-31 N. Broadway; cost \$5000.

Mo., St. Louis.—William Degenhardt will erect two two-story apartment-houses. (See "Dwellings.")

Mo., St. Louis.—John Pokajski will erect two-story tenement-house at 4671 Louisiana St.; cost \$4800.

Mo., St. Louis.—F. S. Rice will erect three-

story tenement-house at 539½ McPherson St.; cost \$8000.

Mo., St. Louis.—Jacob Rubin will erect apartment-house on Virginia Ave. under supervision of Anderson-Stocke-Buermann Company.

Mo., St. Louis.—Otto Fisher will erect two-story tenement-house at 4222 Clarence St.; cost \$3900.

Mo., St. Louis.—Alois Bulo will erect two-story tenement-house at 3716 Minnesota St.; cost \$2000.

Mo., St. Louis.—Mrs. Henrietta Hauck will erect six four-room apartment-houses.

Mo., St. Louis.—Tacoma Investment Co. purchased site on Lafayette Ave. with frontage of 120 feet, and will erect three-story apartment buildings.

Mo., St. Louis.—William Gruenwald will erect two double apartments on Arsenal St.

Mo., St. Louis.—H. J. Pousser will erect two-story apartment-house at 2242 Adelaide St.; cost \$4500.

Mo., St. Louis.—B. Goedecker will erect two-story tenement-house at 2830 Oregon St.; cost \$4400.

S. C., Greenville.—John B. Marshall will erect apartment-house at Washington St. and Butler Ave.; brick; steam heat; electric lights.

Tenn., Chattanooga.—W. H. Sears prepared plans for addition to Robinson Apartment-house; three stories; reinforced concrete; fireproof; 21 apartments; cost \$30,000.

Tenn., Memphis.—Mrs. W. S. Myrick has plans by John Galsford, Memphis, for apartment-house; three stories; six apartments; brick; stone trimmings; cost \$20,000.

Tenn., Nashville.—George J. Hall will erect apartment-house at McCalle Ave. and A St.

Tenn., Paris.—O. C. Barton will erect annex to Barton Flats; two stories; cost \$15,000.

Tex., Dallas.—J. M. Kimbrough will erect 16-room frame apartment-house at 2803 Forest St.; cost \$4000.

Tex., Houston.—Henry S. Fox estate has plans by Green & Finger, Houston, for apartment-house on Main St.; three stories; will receive bids until March 15; stores on lower floor.

Va., Richmond.—A. J. Adamson & Co. will erect apartment-house at 13th and Porter Sts.; four stories; will also contain store and offices.

Va., Richmond.—John H. Lyneman & Co. will erect two-story brick tenement-house; cost \$6000.

#### ASSOCIATION AND FRATERNAL

Fla., Palatka.—Palatka Chapter No. 34, A. F. and A. M., will erect lodge and office building; five stories; reinforced steel and concrete; cost \$30,000.

Ga., Macon.—Benevolent Protective Order of Elks will erect lodge building; six stories; reinforced concrete; lower floor for stores; cost \$50,000. (Previously noted.)

Ky., Elizabethtown.—Ancient Free and Accepted Masons are having plans prepared by Loomis & Hart, Louisville, Ky., for lodge building; two stories; 50x86 feet; cost \$15,000. (Recently noted.)

La., New Roads.—Clay Camp No. 271, Woodmen of the World, will erect building; two stories; brick; 30x50 feet.

S. C., Columbia.—Lodge No. 1190, Benevolent Protective Order of Elks, will erect lodge building; J. L. Irwin, exalted ruler.

Tenn., Memphis.—Memphis Lodge, Loyal Order of Moose, it is reported, will erect lodge building to cost about \$150,000; five stories and basement; fireproof; ground floor for stores.

Tex., El Paso.—W. M. McCullough, secretary Scottish Rite Masons, states Cathedral will not be erected at present. (Recently noted.)

Tex., Corsicana.—Benevolent Protective Order of Elks plans to erect lodge building; cost \$35,000.

Tex., Galveston.—Young Men's Christian Association plans to improve building; will provide three additional dormitory-rooms, install cast-iron boiler for heating plant, overhaul electrical wiring system, etc.

#### BANK AND OFFICE

Ala., Mobile.—Pensacola, St. Andrews & Gulf Steamship Co. plans to erect office and warehouse. (See "Warehouses.")

Ark., Altheimer.—Bank of Altheimer, J. S. McDonnell, president, will erect two-story brick building.

Ark., Kensett.—Farmers and Merchants' Bank will erect bank building; William Abernethy, president. (See "Machinery Wanted.")

Fla., Sarasota.—Sarasota Improvement Co. will erect store and office building. (See "Stores.")

Fla., Palatka.—Palatka Chapter No. 34, A. F. and A. M., will erect office and lodge building. (See "Association and Fraternal.")

Fla., Tampa.—Tampa Electric Co. will expend \$35,000 to erect office building; two stories; 50x60 feet; electrical heating and lighting; roofing not determined; architect not selected; construction by company. (Recently noted.)

Ga., Savannah.—Fleming D. Tinsley and associates will erect office building at Bay and Drayton Sts.; six stories.

Ky., Hazard.—S. A. D. Jones opens bids April 15 to erect office and store building recently reported burned. (See "Stores.")

La., New Orleans.—American Express Co., main office, 65 Broadway, New York, will, it is reported, enlarge office building.

Md., Libertytown.—Libertytown Savings Bank will probably erect building.

Miss., Marks.—L. Marks Sons will let contract April 1 to erect office and store building recently noted; cost \$15,000. (See "Stores.")

Mo., St. Louis.—E. L. Kuhs will erect store and office building. (See "Stores.")

Mo., St. Louis.—Polar Wave Ice & Fuel Co. will erect building for general offices, etc. (See "Ice and Cold Storage.")

Mo., St. Louis.—German Savings Institution will erect bank building.

N. C., Asheville.—Yates & McGuire will erect business and office building. (See "Stores.")

N. C., Raleigh.—John R. Golder is having plans prepared for store, office and hotel building. (See "Hotels.")

N. C., Smithfield.—Bank of Smithfield opens bids in about 30 days to erect bank building; 27x60 feet; two stories; ordinary construction; steam heat; electric lighting; Barrett specification roof; cost \$15,000; plans by Sayre & Baldwin, Anderson, S. C.

N. C., Winston-Salem.—People's National Bank will enlarge bank building; erect additional stories, etc.

Okla., Miami.—A. K. Wilder contemplates erecting bank building; two stories; brick; stone pillars height of building; will be occupied by Miami Trust and Savings Bank and Miami Abstract & Loan Co.

S. C., Greenville.—Company composed of A. L. Mills, J. Hudson Williams and others reported to erect theater and office building.

Tenn., Nashville.—Hirschberg Bros. have plans for store and office building. (See "Stores.")

Tex., El Paso.—Company headed by A. W. Bittick is having plans prepared by O. H. Thorman & Co., El Paso, for office building at Mesa Ave. and Mills St.; architects wire Manufacturers Record: "Dimensions 86x70 feet; steel frame; brick and terra-cotta face; hollow tile filler; reinforced concrete floors; two electric elevators; fireproof doors; steel cabinets; steam heating; 11 stories, basement and sub-basement; cost \$150,000; name, National Bank of Commerce Bldg."

Tex., El Paso.—W. Fenchler is having plans prepared by Trost & Trost, El Paso,

for building; 10 stories; concrete, steel and pressed brick with terra-cotta trimmings; fireproof; first floor for stores; remainder of building for offices; cost \$200,000. (Previously mentioned.)

Tex., San Antonio.—Globe Fire Insurance Co., Van A. Webster, president, will erect one-story fireproof office building; cost \$5000. (See "Machinery Wanted.")

Tex., Waco.—Rotan Realty Co., it is reported, purchased site at southeast corner Austin and 6th St. for eight or ten-story office building. (Edward and George V. Rotan previously noted as probably to erect building on same site.)

Va., Portsmouth.—Bank of Tidewater will erect bank building; one story; stone, brick and concrete; estimated cost, \$20,000. (Previously noted.)

Va., Richmond.—A. L. Adamson & Co. will erect store, office and apartment-house. (See "Apartment-Houses.")

#### CHURCHES

Ala., Glencoe.—Baptist church will erect building to replace structure reported burned. Address The Pastor, Baptist Church.

Fla., St. Petersburg.—Trustees of Methodist church, Rev. S. A. Keen, pastor, plans to enlarge church or erect new structure.

Fla., Gainesville.—First Baptist Church, James H. Parrish, secretary of building committee, Room 3 Miller Law Exchange, will receive bids until March 17 to erect three-story brick Sunday-school building, remodel auditorium of church, increase seating capacity and install steam heat; plans and specifications at Mr. Parrish's office; cost \$10,000 to \$12,000; plans by R. H. Hunt, Chattanooga, Tenn. (See "Machinery Wanted.")

Ga., Gainesville.—Grace Church, Rev. I. M. Merlino, rector, opens bids in about two months to erect church building; 125x45 feet; fireproof construction; heating and lighting not determined; slate or artificial tile roof; cost \$20,000; plans by The Rector. (Recently noted.)

Ga., Savannah.—Second Christian Church, Rev. Sam J. White, pastor, will erect church building; 60x135 feet.

La., Alexandria.—Emmanuel Baptist Church will erect \$20,000 Sunday-school building, to be used as church until church building is erected later. Address The Pastor, Emmanuel Baptist Church.

La., New Orleans.—Our Lady of Prompt Succor Building Association organized to erect church to cost about \$100,000.

La., Pointe-a-la-Hache.—Catholic congregation will erect church at Dollut's Canal. Address The Pastor, Catholic Church.

Md., Texas.—Trustees of Methodist Protestant Mission will erect church building.

Mo., Clinton.—Methodist Episcopal church South, Rev. C. A. Powers, pastor, will rebuild edifice; 40x70x15 feet; ordinary construction; steam heat; electric lighting; composition or metal roof; install shower baths, kitchen equipment, etc.; cost \$15,000 to \$25,000; architect not selected; bids opened about April 15. (Recently reported burned.)

N. C., Dunn.—Methodist congregation, Rev. James Long, pastor, has plans by J. M. McMichael, Charlotte, N. C., for building; slate roof; cost \$15,000; other details not determined. (Recently noted.)

N. C., Dunn.—Baptist church will erect edifice. Address The Pastor, Baptist Church. (Recently incorrectly noted as Dunn, S. C.)

Okla., Hastings.—Presbyterian church plans to erect building. Address The Pastor, Presbyterian Church.

S. C., Bishopville.—H. W. Woodward, secretary, will receive bids until March 18 to erect Methodist Episcopal church; plans, specifications and information from Wheeler & Stern, architects, Charlotte, N. C.

S. C., Liberty.—Baptist church, C. E. Bush, secretary building committee, invites bids to erect building; cost \$7000.

Tenn., Monterey.—Methodist Episcopal Church South, W. B. Ray, chairman of building committee, will erect building to cost \$7000.

Tex., Blooming Grove.—Methodist congregation will erect \$8000 church. Address The Pastor, Methodist Church.

Tex., Dallas.—Central Presbyterian Church will erect church building; cost about \$200,000. Address The Pastor, Central Presbyterian Church.

Tex., Dallas.—First Methodist Church will erect church building. Address The Pastor, First Methodist Church.

Tex., McGregor.—First Baptist Church has plans by Pangel & Patterson, Temple, Tex., for building; 45x90 feet; ordinary construction.

tion; hot-air heat; metal tile roof; cost \$16,000; bids opened March 11; Rev. C. G. Howard, pastor. (Recently noted.)

Tenn., Waxahachie.—First Baptist Church will erect \$20,000 Sunday-school building. Address The Pastor, First Baptist Church.

Va., Newport News.—Second Baptist Church will erect addition to building; 25x52 feet; red brick; concrete steps; concrete columns; 11 classrooms in basement; auditorium on second or main floor to seat 162. Address The Pastor, Second Baptist Church. (Recently noted.)

Va., Norfolk.—South Norfolk Baptist Church will erect brick church building; cost \$25,000. Address The Pastor, South Norfolk Baptist Church.

Va., Norfolk.—First Calvary Baptist Church, Rev. P. J. Wallace, pastor, has plans by Rossel Edward Mitchell, Norfolk, for church building; square interior, with galleries on three sides; ceiling surmounted with domed skylight in art glass; cost \$50,000.

Va., Petersburg.—Congregation of B'rith Achem will expend \$10,000 to erect synagogue; 40x60 feet; fireproof construction; hot-water heat; gas and electric lighting; proposals may be addressed to Sol Cooper. (Recently noted.)

W. Va., Charleston.—First Methodist Episcopal Church South, Rev. W. G. Banks, pastor, plans to erect church and parsonage; 96x86 feet; main auditorium to seat 1200; cost \$75,000.

W. Va., Charles Town.—Baptist Church rejected all bids to erect church building. Address The Pastor, Baptist Church.

W. Va., Fairmont.—Rev. H. G. Stoetzer, pastor First Presbyterian Church, states congregation will not at present erect building recently reported.

W. Va., Hinton.—First Baptist Church, Rev. W. Leo Brown, pastor, 108 Temple St., has plans by J. B. Martin, East Liverpool, O., for proposed building; 98 feet 6 inches by 67 feet 6 inches; mill construction; cost \$15,000; bids opened March 8.

W. Va., Wheeling.—Second United Presbyterian Church opens bids in about a month to erect church building; 50x80 feet; steam heat; slate roof; cost \$35,000; plans by F. F. Faris of Wheeling, to whom proposals may be addressed. (Recently noted.)

### CITY AND COUNTY

Ark., Ashdown.—Little River County Jail Commissioners, W. M. Sykes, Commissioner, will let contract April 8 for materials and erection of county jail; two stories and basement; reinforced concrete; steam heat; sewerage and water systems; electric wiring; eight cells; jailer's living-room and offices complete; plans and specifications on file in County Clerk's office, copies of which may be had from Frank M. Blaisdell, architect, Southern Trust Bldg., Little Rock, Ark.; application to be accompanied by draft for \$10. (Recently noted.)

Fla., Bartown.—Library.—City will erect Carnegie library; J. B. Oeland, City Clerk.

Ga., Atlanta.—Hospital.—Blair & Adams, architects, Forsyth Bldg., Atlanta, will receive bids until March 17 to erect nurses' dormitory at Grady Hospital; plans and specifications from architects on deposit of \$25; W. S. Elkin, Jr., chairman; W. B. Summerall, superintendent. (Previously noted.)

Ga., Columbus.—Hospital.—City plans election to vote on \$60,000 bond issue to erect city hospital. Address The Mayor.

Ga., Vidalia.—Fire Station, Jail, etc.—City will vote April 5 on \$25,000 bond issue, to include \$10,000 for lot and building for fire department, city offices and jail with steel compartments. Address The Mayor.

Ga., Waycross.—City Hall and Jail.—City is receiving bids to erect city hall addition and jail. Address The Mayor. (Recently noted.)

La., Shreveport.—Market.—City defeated \$150,000 bond issue to erect central market-house. Address The Mayor. (Recently noted.)

Mo., Mexico.—Jail.—Audrain county will vote April 12 on tax levy to erect jail. Address County Commissioners.

N. C., Wentworth.—Home.—Rockingham County Commissioners, J. P. Michael, clerk, will consider plans March 17 for county home; accommodations for 50 inmates; cost not to exceed \$20,000.

N. C., Wilmington.—Jail.—New Hanover county is considering enlargement of jail to cost \$3000 to \$5000; will have plans prepared by James F. Gause, Jr., 209 Odd Fellows Bldg., Wilmington. (See "Machinery, etc., Wanted.")

Tenn., Chattanooga.—Pavilion.—City will erect pavilion in Houston Park; 45x25 feet; concrete floor; outside brick wall to height of two and one-half feet; upper portion covered with fancy shingles. Address The Mayor. (Recently noted.)

Tenn., Franklin.—Library.—City will erect proposed Carnegie library. Address The Mayor.

Tenn., Nashville.—Library.—City will erect library building in North Nashville; cost \$25,000. Address The Mayor. (Recently noted.)

Tex., Austin.—Hospital.—City Council approved budget providing \$50,000 for hospital; three stories; brick, concrete and steel; fireproof; plans by H. M. Thomson, Dallas, Tex.; Meyer J. Sturm, associate architect, Chicago, Ill. (Previously noted.)

Tex., Belton.—Jail.—Bell County Commissioners have plans and specifications by Southern Structural Steel Co. (previously noted as having contract for steel and heating equipment), San Antonio, Tex., to repair county jail; bids opened March 12.

Tex., Sherman.—Library.—City accepted plans by John H. Tullock, Sherman, for Carnegie library to cost \$20,000.

Va., Staunton.—Jail.—City and Augusta County Commissioners adopted plans by Camden Iron Works, Salem, Va., for jail to cost about \$32,000. (Recently noted to have awarded contract to Camden Iron Works, Philadelphia, Pa.)

Va., Portsmouth.—Market.—Finance committee will recommend to City Council appropriation of \$3000 to improve Seaboard Market.

Va., Petersburg.—Alms-house and Armory.—Finance committee will recommend to City Council appropriation of \$15,000 to erect alms-house, also \$30,000 to erect armory. Address The Mayor.

### COURTHOUSES

Miss., Meadville.—Franklin county voted \$40,000 bond issue to erect courthouse; A. R. Moore, Chancery Clerk. (Recently noted.)

Tenn., Ooltewah.—James County Commissioners will probably rebuild courthouse reported burned at loss of \$10,000.

Tex., Abilene.—Taylor county has no definite plans for courthouse to cost \$125,000; fireproof; hot-water heat preferred; probably tile roof; architect not selected; T. A. Blodsoe, County Judge. (Recently noted as to vote March 29 on \$153,000 bond issue.)

### DWELLINGS

Ala., Birmingham.—Dr. E. Lawrence Scott will erect two-story frame dwelling at Altamont and Cliff Rds.; cost \$4000.

Ala., Birmingham.—David Mimms will erect two one-story frame dwellings; total cost \$3200; day labor.

Ala., Birmingham.—W. G. Oliver will expend \$10,400 to erect 15 one-story dwellings; day labor. (Recently noted.)

Ala., Birmingham.—J. T. Beasley will expend \$4500 to erect two-story brick-veneer dwelling; day labor. (Recently noted.)

Ala., Birmingham.—Jay Smith has plans by William Leslie Welton, Birmingham, for dwelling. (See "Machinery Wanted.")

Ala., Talladega.—J. F. Klein has plans by Miller & Martin, Title Guarantee Bldg., Birmingham, Ala., for bungalow.

Ala., Tuscaloosa.—J. P. Tillery will erect residence.

Ala., Eufaula.—J. R. Barr will rebuild residence; eight rooms; tin roof; cost \$7500; architect not selected. (Recently noted burned.)

Ark., Little Rock.—E. M. Allen will erect two-story frame residence at 5105 Lee Ave.; cost \$3250.

D. C., Washington.—T. A. Wickersham, 625 Colorado Bldg., agent for estate of John F. Walsh, has plans for residence at 23d and Calvert Sts. N. W.; four stories and English basement; tapestry brick; garage.

Fla., Gainesville.—Alachua Realty Co., James H. Parrish, secretary, will soon let contracts to erect 10 dwellings; cost \$2000 to \$4000 each.

Fla., Jacksonville.—R. W. Simms will erect dwelling; 81x75 feet; ordinary construction; steam heat; electric lighting; tile roof; cost \$30,000; plans by James R. Walsh, Jacksonville; day labor.

Fla., Jacksonville.—J. F. Zetsche will erect two-story frame dwelling; cost \$4000.

Fla., Jacksonville.—J. M. Robinson, Jr., will erect two-story frame dwelling; cost \$4000.

Fla., Jacksonville.—L. J. Lazere will

erect one two-story frame dwelling; cost \$3500.

Fla., Jacksonville.—J. R. Anderson will erect two-story frame dwelling; cost \$3500.

Fla., Lakeland.—W. K. McKee will erect residence.

Fla., Lakeland.—I. J. Jennings will erect residence.

Fla., St. Petersburg.—E. M. Backus has plans by J. G. Bonniwell, St. Petersburg, for residence; cost \$4000.

Fla., Tarpon Springs.—A. D. Smith will build dwelling near Whitcomb Bayou.

Ga., Americus.—A. C. Crockett has plans by T. F. Lockwood, Columbus, Ga., for one-story brick-veneer residence; cost \$6000.

Ga., Americus.—Crawford Wheatley has plans by T. F. Lockwood, Columbus, Ga., for residence; 130x75 feet; two stories; 16 rooms; stucco; gravel roof; hot-water heat; cost \$30,000; day labor.

Ga., Atlanta.—Pitt & Quarles will erect two-story frame dwelling at 114 Moreland St.; cost \$4000; day labor.

Ga., Atlanta.—J. H. Mathewson will erect two one-story frame dwellings on Mathewson Pl.; cost \$4000; day labor.

Ga., Atlanta.—Meredith Collins will erect two-story frame dwelling at 640 W. Peachtree St.; cost \$7000; day labor.

Ga., Atlanta.—J. B. Daniel will erect two-story brick-veneer dwelling at 247 Prado St.; cost \$8000; day labor.

Ga., Atlanta.—Mrs. F. D. Storres will erect two-story frame dwelling at 52 Elizabeth St.; cost \$6500; day labor.

Ga., Atlanta.—Gate City Home Builders will erect two one-story frame dwellings on Cascade St. and 20 Seal Place; cost \$6100.

Ga., La Grange.—La Grange Mills will erect eight residences.

Ga., La Grange.—J. H. Wright will erect three residences.

Ga., Rome.—P. D. Christian will erect colonial residence.

Ga., Savannah.—N. F. Peters will erect 10 one-story frame dwellings.

Ga., Savannah.—T. H. Anderson will erect two two-story frame dwellings.

Ga., Savannah.—Georgia C. Schwarz will erect two-story frame residence.

Ga., Savannah.—Dr. P. A. Waring will erect two two-story frame residences.

Ky., Glasgow.—Rev. H. W. Williams, pastor of Baptist church, will erect residence in Highland Park.

Ky., Lexington.—Charles H. Berryman has plans for residence; colonial style.

Ky., Louisville.—Sallie Boswell will erect frame dwelling at 3630 W. Broadway; cost \$3500.

Ky., Maysville.—William Daugherty will erect residence.

Ky., Waitman.—E. A. Waitman opens bids in spring to rebuild dwelling recently reported burned; slate roof. (See "Machinery Wanted.")

La., New Orleans.—Metropolitan Building Co. will erect double residence. (See "Apartment-houses.")

La., New Orleans.—N. J. Ciesl will erect number of bungalows; plans for several prepared.

La., New Orleans.—Mrs. Laura Payrot will erect cottage on Ursuline St.

La., New Orleans.—Frank Baker will erect two-story single residence; cost \$6000.

La., New Orleans.—J. A. Cothran, Verna St., near Esplanade Ave., will erect two-story dwelling in Arcadia Ct.; tile roof.

La., New Orleans.—A. L. Bisso will erect one-and-a-half-story residence; slate roof; cost \$4000.

Md., Baltimore.—Thomas Goodwillie, 1015 N. Calvert St., will probably erect residence on Windover Rd., Guilford.

Md., Baltimore.—Provident Realty Corporation, Garrison and Piedmont Aves., has plans by Henry J. Tinley, 312 N. Charles St., Baltimore, for residence on Roslyn Ave. near Carlisle Ave.; two and a half stories; frame; 28x32 feet; cost \$5000.

Md., Baltimore.—John J. Carlin, 215 St. Paul St., is having plans prepared by Stanislaus Russell, 2900 Clifton Ave., Baltimore, for seven dwellings at Poplar Grove and Lorman Sts.; two and a half stories; brick; 14x45 feet; hot-air heat; cost about \$1900 each.

Md., Baltimore.—Walter L. Westphal, 1700 N. Bond St., purchased 10-acre tract on Butchers La. and will erect 175 dwellings; 11x46 feet; ordinary construction; Carey's roofing; cost \$2000 each; plans and construction by owner.

Md., Baltimore.—Jesse Boynton, 1116 N. Calvert St., will erect residence at Guilford. Md., Baltimore.—J. Swan Frick, 126 W. Franklin St., will erect residence at Guilford.

Md., Baltimore.—John P. Brandau & Bros. have plans by Arthur L. Blatchley, 412 Wittridge Ave., Baltimore, for dwelling; 16x54 feet; two stories; brick; steam heat; gas and electric lighting; Carey's roofing; cost \$2800; construction by owners; are also having plans prepared by Mr. Blatchley for three two-story brick dwellings on North Ave.; cost \$9000.

Md., Baltimore.—Moses R. Walter, Maryland Trust Bldg., has plans to rebuild residence at 2801 N. Charles St. at cost of about \$6000; contractors estimating are B. F. Bennett Building Co., 123 S. Howard St.; Henry Smith & Sons Company, 111 Hanover St.; Alexander Brown, Boardman Ave., near Garrison Ave.; Gladfelter & Chambers, 2074 Woodberry Ave., all of Baltimore.

Md., Cumberland.—Joseph Footer will erect two residences.

Md., Govans.—George M. Rullman, Eversham Ave., will erect residence at North Govans; two and a half stories; frame; concrete foundation; Cowan Building Co., 106 W. Madison St., Baltimore, Md., is estimating.

Md., Jefferson.—Samuel L. Bowls will erect residence near Broad Run.

Md., Mount Washington.—E. Donovan Huns, 1201 Calvert Bldg., Baltimore, Md., is having plans prepared by Edward H. Gilden and Clyde N. Friz, Maryland Casualty Tower Bldg., Baltimore, Md., for residence; contractors estimating are J. Henry Smith, 1416 Light St.; J. Charles Kemper, Pimlico Rd., near Ridgely Ave., both of Baltimore, Md., and C. W. Brown Construction Co.

Miss., Marks.—M. I. Marks will let contract April 1 to erect bungalow; mill construction; hot-air heat; electric lighting; metal shingle roof; cost \$3000; plans by M. M. Alsop, Houston, Miss. (Recently noted.)

Mo., Kansas City.—T. E. Smith & Son will erect stone-veneer dwelling; cost \$5000.

Mo., Kansas City.—F. C. Riley will erect six one-story frame bungalows on Main St. to cost \$2600 each and four two-story dwellings on East 55th St. Terrace to cost \$4500 each.

Mo., St. Louis.—Emil Everts will erect two-story dwelling at 3919 Shaw St.; cost \$4000.

Mo., St. Louis.—Frank R. Cobbs will erect residence on Vandeventer Pl.

Mo., St. Louis.—Rose Davis will erect store and dwelling. (See "Stores.")

Mo., St. Louis.—Charron Realty Co. will erect two-story dwelling at 4618 Tower Grove St.; cost \$3000.

Mo., St. Louis.—Harry B. White will erect two one-story dwellings at 3840-42 Cottage St.; cost \$3200.

Mo., St. Louis.—William Koedding will erect residence on Potomac St.

Mo., St. Louis.—William Degenhardt will erect four two-story dwellings at 603-09-17-25 Kingshighway and two two-story tenements at 6326-28 Alabama St. and 6327-29 Vermont St.; cost \$22,000.

Mo., St. Louis.—Matilda Hardesty will erect two-story dwelling at 7042 Marquette St.; cost \$4250.

Mo., St. Louis.—Julius Horwitz purchased 200-foot site on Whittier St. and will erect number of cottages.

Mo., St. Louis.—Frank L. Dittmeier will erect five four-room cottages on Maffitt Ave. for client.

N. C., Bakersville.—Charles E. Green is having plans prepared by C. G. Mitchell, Johnson City, Tenn., for dwelling; cost \$5000.

N. C., Fayetteville.—C. J. Cooper will erect \$3000 residence on Hay St. and \$1500 residence on Athens Ave.

N. C., Gastonia.—Committee Lutheran Church opens bids April 1 to erect parsonage; two stories; eight rooms; mill construction; electric lighting; slate roof; cement sidewalk; cost \$4000. (Recently noted.)

N. C., Raleigh.—W. A. Hoke will erect eight-room residence; cost \$7300.

Okla., Tulsa.—E. H. and H. E. Smittle will erect two-story frame store and dwelling; cost \$3000.

Okla., Tulsa.—C. D. Coggeshall will erect two-story frame dwelling; cost \$3000.

Okla., Tulsa.—William Lynch will erect two-story frame residence; cost \$3000.

Tenn., Chattanooga.—R. T. Wright will erect six-room frame dwellings on Anderson St.; cost \$6000.



Tenn., Johnson City.—Seth O'Dell has plans by C. G. Mitchell, Johnson City, for eight-room dwelling.

Tenn., Memphis.—A. J. Jenkins will erect residence.

Tenn., Memphis.—I. H. Bensdorf and Milton Blinswanger will erect two residences at Speedway and Poplar Ave.; cost \$30,000 each.

Tenn., Paris.—Methodist church will erect parsonage; cost \$6000; John R. Rison, chairman of committee.

Tex., Alvin.—J. T. McCormack, Pearland, Tex., will expend \$7200 to erect six dwellings recently noted; five and six rooms; ordinary construction; shingle and Texico roofing; day labor. (See "Machinery Wanted.")

Tex., Austin.—T. H. C. Craig will erect two-story frame dwelling at 707 W. 23d St.; cost \$5000.

Tex., Beaumont.—Lee Blanchette has plans by H. C. Mauer, Beaumont, for residence; two stories; frame; brick and concrete foundation; cost \$8000 to \$10,000.

Tex., Dallas.—J. H. Dean will erect six-room two-story frame dwelling at 4907 Crutcher St.; cost \$2975.

Tex., Dallas.—C. M. Bolanz will erect two-story brick-veneer residence at 127 Montclair St.; cost \$5500.

Tex., El Paso.—J. F. Mullen will erect residence; cost \$3000.

Tex., El Paso.—J. W. Jackson will erect three brick bungalows; cost \$4500.

Tex., El Paso.—Pringle & Crawford will erect dwelling at Williams and Montana Sts.; two stories; brick; cost \$6000.

Tex., El Paso.—Hawkins Improvement Co., 607 Morgan Bldg., will expend \$6000 to erect three five-room cottages; brick; no bids. (Recently noted.)

Tex., El Paso.—Mayfield Realty Co. has plans by O. L. Thorman & Co., El Paso, for one six-room and two five-room bungalows; brick; ordinary construction; furnace; electric lighting; composition and shingle roof; cost \$3500, \$3000 and \$3100, respectively; construction by owners.

Tex., Galveston.—G. H. Freuhling will erect six-room residence; cost \$4000.

Tex., Goliad.—Dr. W. E. Bennett will erect two residences.

Tex., Houston.—Ed. Schaffer has plans for residence.

Tex., Houston.—Russell Brown Company has plans by R. A. Harden, 1216 Carter Bldg., Houston, for dwelling; 45x55 feet; mill construction; hot-water heat; dumbwaiter; composition flat roof; cost \$18,000; construction by owner. (Recently noted.)

Tex., Pecos.—F. W. Johnson will erect residence according to plans by Bruce Walker & Co., Pecos; brick and concrete; cost \$15,000.

Tex., San Antonio.—Pearl M. Zilker will erect addition to dwelling on San Pedro Pl.; cost \$5000.

Tex., San Antonio.—W. A. Baily will erect three five-room cottages; cost \$4200.

Tex., San Antonio.—Mrs. D. K. Stires will erect two-story dwelling; cost \$4500.

Tex., Victoria.—J. L. Dupress is having plans prepared for cottage.

Va., Gloucester.—Decatur Mayo, Norfolk, is reported to erect residence.

Va., Richmond.—O. J. Davis will erect detached two-story brick dwelling; cost \$5000.

Va., Martinsville.—Dr. Charles T. Womack will receive bids until March 13 to erect residence; plans by Linthicum & Rose, architects, may be had on deposit of \$10.

Va., Richmond.—W. A. Hoover will erect two-story brick dwelling; cost \$7000.

Va., Richmond.—F. W. Brauer will erect two-story brick dwelling; cost \$12,000.

Va., Richmond.—W. F. Deitrich, Jr., will erect two dwellings; cost \$8000.

Va., Richmond.—E. C. Woodward will erect detached two-story brick dwelling; cost \$3500.

Va., Richmond.—Claude E. Sprengle will erect 18 detached two-story brick dwellings; cost \$23,000.

Va., Richmond.—Chasie Trafeiri and others will erect store and dwelling. (See "Stores.")

Va., Richmond.—Mrs. D. E. and L. R. Allen will erect two-story brick dwelling; cost \$6525.

Va., Richmond.—W. J. Gilman and George D. Priddy will erect three two-story brick dwellings; cost \$22,500.

Va., Richmond.—Davis & Archer will erect two-story brick dwellings; cost \$12,000.

Va., Richmond.—L. R. Smith will erect two-story brick tenement-house; cost \$14,500.

Va., Richmond.—Samuel Ver Veer will erect two-story brick dwelling; cost \$7200.

Va., Roanoke.—J. F. Barbour & Sons will erect three dwellings in South Roanoke; cost \$3500 each.

Va., Staunton.—H. E. and Miss Agatha Gay will erect residence.

W. Va., Bluefield.—Roy White will erect residence.

W. Va., Charleston.—First Methodist Episcopal Church South, Rev. W. G. Banks, pastor, will erect church and parsonage. (See "Churches.")

W. Va., Summit Point.—S. S. Polhamus will erect dwelling with wing; brick; 36x38 feet; Harry P. Light, Summit Point, will supervise construction.

### GOVERNMENT AND STATE

Ga., Augusta.—Postoffice.—Treasury Department, Oscar Wenderoth, supervising architect, Washington, D. C., opened bids to erect postoffice; J. E. & A. L. Pennock, Philadelphia, Pa., are lowest bidders at \$22,800 for limestone and \$249,400 for sandstone construction. (Recently noted.)

Miss., Rankin.—Hospital.—Penitentiary Trustees, C. C. Smith, chairman, Jackson, Miss., authorized superintendent to enlarge and improve hospital building, also to purchase number of sewing machines.

### HOTELS

Fla., Daytona.—H. Marshall Gardiner, Nantucket, Mass. (temporary address, care Palmetto Hotel, Daytona), purchased Palmetto Hotel property and will erect new hotel on site. Mr. Gardiner wires Manufacturers Record: "Have not decided on architect; Moorish design; fireproof construction; probably cement and hollow tile; modern as can be made practical; cost \$250,000 to \$500,000."

Fla., Jacksonville.—Herman R. Finn, proprietor of Flagler Hotel, is reported as to erect additional hotels.

Fla., Miami.—A. P. Warner of Beloit, Wis., is reported, purchased site 150x150 feet at Boulevard and 8th St., to erect 10-story hotel.

Fla., St. Petersburg.—J. M. Sholl, Peoria, Ill., awarded contract to Mr. Anderson to erect hotel at Seventh Ave. and Oak St.; 42 rooms; 127x60 feet; three stories; brick and concrete; ballroom and restaurant on roof and enclosed in glass; cost \$40,000.

Fla., Tarpon Springs.—Tarpon Springs Hotel Co., J. K. Cheney, president, it is reported, is having plans prepared by Bonfoey & Elliott, Tampa, Fla., for hotel; 100 rooms; three stories and basement; 230x100 feet; cost \$40,000 to \$50,000. (Recently noted.)

Ga., Augusta.—Lawrence Hotel Co. (Bryan Lawrence and others) will receive bids until March 17 for steel and concrete work on Lawrence Hotel; plans by Bellomy & Whaley, 3 King Bldg., Augusta, call for 10-story structure; 210 rooms; 125 private baths. (Previously noted.)

N. C., Raleigh.—John R. Golter will erect building adjoining Wright's Hotel; three stories and basement; ground floor for stores and offices; 52x110 feet; upper floors for 50 hotel rooms, half of which will be equipped with private baths; limestone and pressed brick; cost \$30,000; is having plans prepared by Frank K. Thompson.

S. C., Greenville.—A. A. Gates leased Blue Ridge Hotel and will remodel.

### MISCELLANEOUS

Ala., Birmingham.—Stable.—John H. Frye has plans by Miller & Martin, Title Guarantee Bldg., Birmingham, for two-story brick stable at Roebuck Springs.

Ala., Mobile.—Clubhouse.—Clubhouse Country Club, Murray Wheeler, president, will erect clubhouse.

Fla., Ocala.—Hospital.—Marion County Hospital Association will issue \$10,000 of bonds toward erection of hospital to cost \$18,000.

Ky., Pikeville.—Hospital.—Dr. W. J. Walters and others are not interested in organization of company to erect hospital, as recently reported.

Md., Baltimore.—Historical.—Maryland Historical Society, St. Paul and Saratoga Sts., Edwin Warfield of Fidelity & Deposit Co., Charles and Lexington Sts., president, plans to erect building.

Mo., St. Louis.—Clubhouse.—Wagoner Place Methodist Episcopal Church South, Rev. John McCarthy, pastor, is having plans prepared by J. L. Wees for boys' clubhouse.

Mo., St. Louis.—Fish Market.—Independent Fisheries Co., A. Meletio, president, will erect building at 407-409 Franklin Ave.

Mo., St. Louis.—Amusement.—Cinderella Amusement Co. will soon award contract to

erect building at Cherokee St. and Iowa Ave.; 185x225 feet; front of white enameled terra-cotta; blast system of cooling and filtering air; eight bowling alleys in basement; will contain dance hall, roller skating rink, lodge hall and auditorium; marble stairways; cost \$100,000; plans by William Wedemeyer, St. Louis.

Mo., St. Louis.—Shed.—Crane Company will erect one-story shed at 1513-1517-19 Walnut St.; cost \$4000.

S. C., Union.—Hospital.—Hospital Association, T. P. Kennedy, secretary, opens bids March 21 to erect Wallace Thomson Hospital; plans by Sayre & Baldwin, Anderson, S. C. (Recently noted to open bids in February.)

Tenn., Chattanooga.—Orphanage.—Trustees of Vine St. Orphans' Home plan to expend \$15,000 for improvements to orphanage; will retain present brick walls, remodel interior, erect detention ward, provide laundry, etc.; Mrs. A. W. Gaines, chairman of finance committee.

Tex., Port Lavaca.—Pavilion.—Commercial Club is promoting organization of company with capital stock of \$5000 to erect pavilion.

Va., Roanoke.—Locker.—J. F. Barbour & Sons will erect locker for Roanoke Country Club; cost \$3500.

### RAILWAY STATIONS, SHEDS, ETC.

Ark., Eureka Springs.—Missouri & North Arkansas Railroad, W. O. Galbreath, engineer maintenance of way, will erect \$15,000 station.

Ark., Helena.—Missouri & North Arkansas Railroad, W. O. Galbreath, engineer maintenance of way, Eureka Springs, Ark., will erect station and construct yard to cost \$50,000.

Ga., Calhoun.—Western & Atlantic Railroad, J. L. McCollum, superintendent, Atlanta, Ga., will erect depot and remodel present structure.

Ga., Jeffersonville.—Macon, Dublin & Savannah Railroad, J. T. Wright, general manager, Macon, Ga., will erect depot; character of construction not determined.

Ky., Greensburg.—Louisville & Nashville Railway Co., W. H. Courtenay, chief engineer, Louisville, Ky., will erect depot, etc.

Ky., Mayfield.—Illinois Central Railroad Co., A. S. Baldwin, chief engineer, Chicago, Ill., will erect passenger station.

La., Lake Charles.—St. Louis, Iron Mountain & Southern Railway, J. R. Stephens, chief engineer, St. Louis, Mo., will, it is reported, erect depot.

La., Shreveport.—Louisiana Railway & Navigation Co., William Edenborn, president, will erect office building to replace structure recently burned at loss of \$50,000.

Mo., Shelbyville.—Chicago, Burlington & Quincy Railroad Co., W. L. Breckinridge, engineer maintenance of way, Chicago, Ill., will erect station.

Mo., Canton.—Chicago, Burlington & Quincy Railroad Co., W. L. Breckinridge, engineer maintenance of way, Chicago, Ill., will erect \$14,000 brick depot.

N. C., Raleigh.—F. L. Nicholson, chief engineer Norfolk Southern Railroad Co., Norfolk, Va., states company has no plans to erect freight station, as recently reported; will remove cotton platform from Jones St. to another location.

Okla., Miami.—St. Louis & San Francisco Railroad, M. C. Byers, engineer maintenance of way, Springfield, Mo., will erect passenger station; brick; limestone; cost \$25,000.

S. C., Anderson.—Southern Railway Co., B. Herman, chief engineer, 1300 Pennsylvania Ave. N. W., Washington, D. C., will erect passenger station at Blue Ridge.

Tenn., Memphis.—Illinois Central Railroad, A. S. Baldwin, chief engineer, Chicago, Ill., it is reported, will erect temporary passenger station; cost \$6000.

Tenn., Tullahoma.—Nashville, Chattanooga & St. Louis Railway Co., H. McDonald, chief engineer, Nashville, will, it is reported, erect passenger depot.

Tex., San Benito.—St. Louis, Brownsville & Mexico Railway, F. G. Jonah, chief engineer, St. Louis, Mo., will erect passenger station.

Va., Evergreen.—Norfolk & Western Railway, C. S. Churchill, chief engineer, Roanoke, Va., will, it is reported, erect station.

W. Va., Huntington.—Baltimore & Ohio Railroad Co., F. L. Stuart, chief engineer, Baltimore and Charles Sts., Baltimore, Md., it is reported, will probably erect 100-foot addition to freight depot.

### SCHOOLS

Ala., Cuba.—Town Council rejected all bids to erect school, and will receive bids for materials for same. (Recently noted as having plans by P. J. Krouse, Meridian, Miss.)

Ala., Demopolis.—City will erect school to cost \$20,000 to \$25,000; steam heat; architect not selected; electric lighting. Address The Mayor. (Recently noted.)

Ala., Florida.—State High School Commission is having plans prepared by Frank Lockwood, Montgomery, Ala., for Covington County High School. (Recently noted.)

Ala., Talladega.—Presbyterian Church has plans by Miller & Martin, Title Guarantee Bldg., Birmingham, Ala., for brick school building.

Ark., Fayetteville.—Chi Omega Sorority of University of Arkansas will erect memorial hall; Grecian style; four pillars in front; fireproof vault; one story; auditorium to seat 300; heating plant in basement.

Fla., Macclenny.—Baker County School Board will erect school for Cedar Creek subdistrict; also establish subdistrict No. 8 and erect school.

Fla., Tampa.—Rev. J. J. Navin, S. J., is promoting erection of college building to be in charge of Jesuit Fathers; stone.

Ga., Dublin.—City will vote on \$50,000 bond issue, to include \$7000 to erect school. Address The Mayor.

Ky., Louisville.—Bryant & Stratton Business College has plans by J. J. Gaffney, Louisville, for business school recently noted; 70x200 feet; four stories; fireproof construction; steam or hot-water heat; tile roofing; cost \$100,000; proposals addressed to George W. Schwartz, Bryant & Stratton Business College. (See "Machinery Wanted.")

Mo., Higbee.—City will erect school building; cost \$15,000; R. G. Terrill, clerk.

Mo., Kansas City.—Board of Education, J. B. Jackson, Jr., secretary, is reported to receive bids until March 15 to erect Benjamin Harrison school; two stories and basement; cost about \$45,000.

Mo., St. Louis.—St. Cronan's Catholic Church, Rev. J. T. Foley, pastor, will erect \$20,000 school building; two stories and basement; seven classrooms and entertainment hall; fireproof corridors and stairways; brick; Bedford stone trimmings; accommodations for about 300 pupils.

N. C., Burlington.—City contemplates erecting graded school to cost \$40,000. Address The Mayor.

N. C., Cary.—Board of Education of Wake county, Raleigh, N. C., ordered election to vote on \$25,000 bond issue to erect school; Zebulon W. Judd, county superintendent, Raleigh.

N. C., Charlotte.—City will vote on \$50,000 bond issue for school improvements. Address The Mayor. (Recently noted.)

N. C., Charlotte.—Board of School Commissioners is having plans prepared by Louis H. Asbury for school at Chadwick-Hoskins settlement to cost about \$12,000; preliminary plans accepted. (Recently noted.)

N. C., Glenwood.—School Board will erect Glenwood school; two stories; cost \$25,000.

S. C., Newberry.—Hartford School District voted tax to erect school. Address District School Trustees.

S. C., Rock Hill.—School Board invites bids about April 15 to erect school building to cost \$30,000 and additions to old building to cost \$20,000; former to have 14 rooms; hot-air or steam heat; electric lighting; probably slate roof; plans by Hook & Rogers, Charlotte, N. C.; \$75,000 bond issue voted. (Recently noted.)

Tenn., Columbia.—Board of Education plans to issue \$75,000 of bonds to erect school.

Tenn., Johnson City.—Board of Education is having plans prepared by C. G. Mitchell, Johnson City, for annex to Columbus Powell School; four classroom, two in basement for manual training; heating plant, etc. (Recently noted at Knoxville, Tenn.)

Tenn., Milligan College.—C. G. Mitchell, Johnson City, Tenn., is preparing plans for dormitory, eight additional classrooms and chapel for college; cost \$45,000. (Milligan College trustees recently noted to enlarge main building.)

Tenn., Nashville.—City will erect addition to Buena Vista school. Address The Mayor.

Tenn., Nashville.—Trevecca College Board purchased site adjoining Pentecostal Mission Tabernacle and will erect three-story building; cost \$30,000.

Tex., Bay City.—Matagorda County School Districts Nos. 10 and 13 will enlarge school facilities; voted \$3500 and \$1500 of bonds, respectively; Buckeye School District No. 11

and Wadsworth School District No. 2 plan to erect schools. Address District School Trustees.

Tex., Buckeye.—Buckeye School District Trustees plan to erect school. (See Tex., Bay City.)

Tex., Denison.—J. D. Yocum, City Secretary, will receive bids until March 26 (extended date) to erect high school; certified check for 2 per cent. amount of bid, payable to Mr. Yocum; plans and specifications at offices of City Secretary, Denison, and A. O. Watson, architect, Austin, Tex., or may be had from latter on deposit of certified check for \$25; three stories; steel; reinforced concrete; 179 feet 2 inches by 154 feet 4 inches; auditorium to seat 850.

Tex., Edna.—Edna Independent School District voted \$8000 bond issue to erect school. Address District School Trustees.

Tex., Lockhart.—Lockhart Independent school district defeated \$20,000 bond issue to erect school. Address District School Trustees. (Recently noted.)

Tex., Justin.—Trustees of Justin Independent school district will open bids March 17 to erect three-story brick school; plans and specifications from J. A. West, secretary of board, on deposit of \$15.

Tex., Lacoste.—Lacoste School District voted \$10,000 bond issue to erect school; two stories; brick; cost \$6000 to \$8000. (Recently noted.)

Tex., Nordheim.—City will erect \$15,000 school. Address The Mayor.

Tex., Victoria.—Trustees of School District No. 7 will soon award contract to erect Crescent Valley school.

Tex., Wadsworth.—Wadsworth School District Trustees plan to erect school. (See Tex., Bay City.)

Tex., Wichita Falls.—Independent School District voted \$50,000 bond issue to purchase site and erect school building. Address School Trustees. (Recently noted.)

Va., Forda.—J. H. Binford of Co-operative Educational Association is interested in erection of two schools.

Va., Matonca.—Matonca School District voted \$17,000 bond issue to erect school. Address District School Trustees. (Recently noted.)

Va., Norfolk.—A. H. Foreman, division superintendent of schools, 67 Chamberlaine Bldg., Norfolk, will receive bids until March 18 to erect Sewell's Point school in Tanner's Creek School District No. 6, according to plans by Charles M. Robinson, Richmond, Va.; plans and specifications at office of Mr. Foreman or may be had on deposit of \$10; J. D. Guy, chairman, and B. F. Cartwright, clerk of School Board; Norfolk School Board opened bids to erect eight-room school at Lambert's Point, according to plans by Neff & Thompson, Seaboard Bank Bldg., Norfolk; Seay Bros., Norfolk, are lowest bidders at \$19,998; will provide additional building at Brambleton, but plans for this structure indefinite. Recently noted.)

Va., Petersburg.—Finance committee will recommend to City Council appropriation of \$100,000 to erect two schools for negroes to replace Peabody and Jones Street schools; also \$15,000 to erect almshouse and \$30,000 for armory. Address The Mayor. (Previously noted.)

W. Va., Parkersburg.—Board of Education of Parkersburg School District, James A. Wetherell, president, ordered election April 8 to vote on \$300,000 bond issue to erect high school, repair, refurnish and enlarge Jefferson, Nash, McKinley and Sumner schools and make other improvements. (Recently noted.)

## STORES

Ala., Birmingham.—J. W. and W. L. McDonald will erect two-story brick building at 18th St. and Fourth Ave.; cost \$10,500.

Ala., Birmingham.—W. L. Sessions will expend \$3000 to erect two one-story frame stores; day labor. (Recently noted.)

Ala., Birmingham.—W. A. Lester will expend \$6000 to erect two one-story frame stores; day labor. (Recently noted.)

Ark., Prescott.—R. P. Arnold and M. W. Greenon will erect brick building; fireproof construction.

Fla., Dundee.—T. Jacobs of Moultrie, Ga., will erect four concrete store buildings.

Fla., Ocala.—S. R. Whaley purchased store and will rebuild; install plate-glass fronts, new floors, raise and reconstruct ceilings, etc.

Fla., Sarasota.—Sarasota Improvement Co. will erect business building; two stories; 31x100 feet; plate-glass front; lower floor for stores; upper floors for offices.

Ga., Athens.—Huggins & Son will erect

business building; 42x120 feet; two stories; cement basement.

Ga., Macon.—Benevolent Protective Order of Elks will erect store and lodge building. (See "Association and Fraternal.")

Ga., Swainsboro.—J. D. McLeod will erect brick business building.

Ga., Swainsboro.—Miss Made McLeod will erect brick store building.

Ky., Hazard.—S. A. D. Jones opens bids April 15 to erect store and office building; fireproof construction; brick or concrete; steam heat; asbestos or tile roof; cost \$8000. (Recently reported burned.)

Ky., Louisville.—Ed. J. Clem will erect building.

La., New Orleans.—Joseph Oppenheimer rejected all bids to erect five-story brick building at Dryades and Euterpe Sts., and will receive new bids; plans by Emile Well, New Orleans. (Recently noted.)

La., New Orleans.—George Keller has plans by Toledo & Wogan, New Orleans, for building at 821-23 Baronne St.; two stories; brick; fireproof; contractors estimating are F. L. Bixler, George J. Glover, James Geary, Jefferson Construction Co., C. Murphy and John Minot, all of New Orleans.

Md., Baltimore.—J. Wilson Leakin, 813 Fidelity Bldg., contemplates erecting commercial building at 1319 Cathedral St.

Miss., Marks.—L. Marks Sons will let contract April 1 to erect store and office building; 100x35 feet; stores on first floor; offices and auditorium above; ordinary construction; cost \$15,000; plans by M. M. Alsop, Houston, Miss. (Recently noted.)

Mo., Joplin.—W. P. Cleveland will erect business buildings on site 100x152 feet.

Mo., St. Louis.—Composite Realty Co. will repair store at 407 N. 13th St.; cost \$6000.

Mo., St. Louis.—Edward H. Ellerman will erect two-story store building at 3325 Angelica St.; cost \$12,000.

Mo., St. Louis.—Rose Davis will erect store and dwelling at 4218 Manchester St.; two stories; cost \$4000.

Mo., St. Louis.—E. L. Kuhs will erect two-story store and office building at 8315 N. Broadway; cost \$14,650.

N. C., Asheville.—Yates & McGuire will erect business building; 50x60 feet; brick; offices on upper floor.

N. C., Raleigh.—John R. Golder is having plans prepared for store, office and hotel building. (See "Hotels.")

N. C., Smithfield.—Cotton Underwood Company opens bids in about 30 days to erect department store; 108x90 feet; two stories; L-shaped; ordinary construction; steam heat; electric lighting; freight elevator; Barrett specification roofing; cost \$20,000; plans by Sayre & Baldwin, Anderson, S. C.

N. C., Waynesville.—Atkins & Roth will erect fireproof business building.

N. C., Waynesville.—Dr. J. H. Smathers will erect fireproof business building.

Okla., Miami.—Thomas F. Coyne, Webb City, Mo., is having plans prepared for four-story building.

Okla., Tulsa.—E. H. and H. E. Smittle will erect store and dwelling. (See "Dwellings.")

Okla., Kenebec.—Missouri, Oklahoma & Gulf Railroad, J. J. Harrison, chief engineer, Muskogee, Okla., will erect seven one-story business buildings to replace burned structures.

S. C., Greenville.—S. O. Skelton, Liberty, S. C., will erect business building; four stories; brick; 40x120 feet.

S. C., Greenville.—L. A. Mills will not at present erect business building, as recently reported.

S. C., Spartanburg.—Nicholas S. Trakas will erect arcade building.

Tenn., Memphis.—Memphis Lodge, Loyal Order of Moose, it is reported, will erect store and lodge building. (See "Association and Fraternal.")

Tenn., Nashville.—R. T. Wilson Realty Co. will erect business building on Sixth Ave.; three stories and basement; frontage 123 feet.

Tenn., Nashville.—Hirschberg Bros. have plans by Asmus & Norton, Nashville, for building at Seventh Ave. and Broadway; three stories; brick; site 150x40 feet; lower floor to contain six storerooms and upper floors for offices; cost \$40,000.

Tex., Dallas.—Huey & Philip Hardware Co. will erect building to replace burned structure; four stories; fireproof; frontage about 50 feet; cost \$50,000 to \$60,000; previously noted.

Tex., Dallas.—Texas Land & Trust Co.

will expend \$15,000 for general repairs at 907-11 Main St.

Tex., Dallas.—L. B. Dooley will erect three-story brick building at 2513 Floyd St.; cost \$12,000.

Tex., Dallas.—J. M. Cochran and others will erect two-story brick building at 2614 Main St.; cost \$13,200.

Tex., El Paso.—W. Fenchler is having plans prepared for store and office building. (See "Bank and Office.")

Tex., Houston.—Bush & Gerts Piano Co., W. H. Wray, president, Dallas, Tex., plans to erect building.

Tex., Houston.—Henry S. Fox estate will erect store and apartment-house. (See "Apartment-houses.")

Tex., Lockhart.—E. A. Masur will erect business building; two stories; brick.

Tex., Mercedes.—H. J. Menton of Zachry Mercantile Co. will, it is reported, erect building; two stories; brick; 59x75 feet.

Tex., Poteet.—Musgrave & Young will erect two-story reinforced concrete store building.

Tex., Poteet.—H. F. Mumline will erect brick store block.

Tex., Poteet.—W. C. Fitch will erect two-story brick building on site of Poteet Hotel.

Tex., San Marcos.—Moore Grocery Co. is having plans prepared by J. P. Caldwell for business building; 65x100 feet; cost \$8000.

Tex., Texas City.—W. H. Gonne & Co. will erect two-story brick block with frontage of 40 feet.

Tex., Timpson.—W. C. Ward will erect brick building.

Va., Lynchburg.—C. M. Guggenheimer will erect number of small stores.

Va., Richmond.—Chasle Traferri and others will erect three-story brick store and dwelling; cost \$9000.

Va., Richmond.—A. L. Adamson & Co. will erect apartment, store and office building. (See "Apartment-houses.")

Va., Roanoke.—J. F. Barbour & Sons will erect two store buildings; cost \$8000 each.

W. Va., Pinnacle (not a postoffice).—American Coal Co., general offices, 1 Broadway, New York, will erect store building at Pinnacle on Crane Creek.

## THEATERS

Ala., Birmingham.—Birmingham Amusement Co. incorporated with \$15,000 capital stock; William L. Delheim, president; Herbert Levy, vice-president; D. S. Meyer, secretary-treasurer.

Ala., Gadsden.—Gadsden Amusement Co. incorporated with \$15,000 capital stock to erect moving-picture theater.

Mo., Grant City.—Grant City Improvement Co. incorporated with \$3000 capital stock

(not \$10,000, as recently reported under "Land Developments"); will erect opera-house; cost \$5000; bids opened; W. V. Hauber, president. (See "Machinery Wanted.")

Mo., Kansas City.—Kathryn Malcomson will erect moving-picture theater; cost \$7500.

S. C., Anderson.—Leon L. Rice, Q. Frank Johnson, Bob King and G. H. Bailes plan to erect theater; stage with rigging loft 80 feet high; proscenium arch with opening 60 feet and depth 50 feet.

S. C., Greenville.—Company composed of A. L. Mills, J. Hudson Williams and others reported as to erect theater and office building to be leased to Greenville Amusement Co. ment Co.

Tex., Mineral Wells.—W. E. Mayes will erect opera-house.

## WAREHOUSES

Ala., Mobile.—Pensacola, St. Andrews & Gulf Steamship Co. plans to erect warehouse and office at foot of St. Louis St.

Md., Baltimore.—Baltimore & Ohio Railroad Co., F. L. Stuart, chief engineer, Baltimore and Charles Sts., Baltimore, plans to expend \$150,000 to erect storehouse at Mt. Clare; funds to be available from proposed bond issue of \$63,250,000.

Md., Baltimore.—Calvert Drug Co., 205 S. Charles St., is having plans prepared by Haskell & Barnes, 301 N. Charles St., Baltimore, for building at German St. and Little Sharp St.; five stories; 45x60 feet; fireproof; steam heat; gas and electric lights; electric elevators; cost \$28,000 to \$30,000; bids opened in about 30 days. (Recently noted.)

Md., Cumberland.—F. W. Burroughs and Verdeen B. Wilson, local representatives of National Biscuit Co. (main office, New York), will erect building; plans prepared.

Mo., St. Louis.—Rock Island & Pacific Railroad Co., Chicago, Ill., A. T. Hawk, architect, will probably not erect storage warehouse, as recently reported.

S. C., Johnsonville.—Pee Dee Tobacco Warehouse Co. incorporated with \$4000 capital stock by S. B. Postus, C. C. Richardson, J. L. Cook and J. D. Haselden.

Tex., Cleburne.—C. T. Jackson is interested in erection of warehouse; 50x100 feet; capacity for 30 to 40 carloads of peanuts.

Tex., Dallas.—Ed. C. Conner and B. D. Millam are reported as interested in erection of warehouse at Main and Murray Sts.; five stories; reinforced concrete; steel, fireproof; 100x100 feet.

Va., Pulaski.—H. A. Sizer will erect warehouse to replace burned structure.

Va., Richmond.—J. R. and E. R. Williams will expend \$3000 to repair warehouse on Cary St.

Va., Richmond.—Simpson, Bass & Co., 12th and Cary Sts., will erect warehouse at 6th and Decatur Sts., South Richmond.

## BUILDING CONTRACTS AWARDED

### APARTMENT-HOUSES

Fla., Tampa.—McGucken & Hyer, Tampa, have contract to erect apartment-house at Palm and Nebraska Aves.; two stories; brick; four stores and 24 apartments; 105x50 feet.

Ga., Americus.—Mrs. H. B. Woolfolk awarded contract to W. C. Lunsford, through Architect T. F. Lockwood of Columbus, Ga., to erect proposed Woolfolk Apartments; 50x90 feet; two stories; frame; cost \$10,000.

Ga., Macon.—A. M. Erwin, 679 College Ave., has plans by and awarded contract to H. A. Bankston to erect tenement-house; 12 rooms; electric lighting; cost \$3500. (Recently noted.)

Ky., Louisville.—Consolidated Realty Co. has plans by and awarded contract to General Construction Co. (subsidiary to above company), Louisville, to erect apartment-house recently noted as to be erected by Realty Investment Co.; six stories; site 130x200 feet; about 100 two, three and four-room apartments; fireproof construction; cut stone, with faced brick exterior; two passenger and one freight elevator; cost \$250,000. (See "Machinery Wanted.")

Tenn., Chattanooga.—J. W. Massey, 920 E. 11th St., awarded contract to P. O. Rogers & Son, Chattanooga, to erect apartment-house; 20 rooms; brick and concrete; gas and electric lighting; Carey's roofing; cost \$5000; plans by F. E. DeSable, Chattanooga. (Recently noted.)

### ASSOCIATION AND FRATERNAL

Ark., Little Rock.—Mosaic Templars of America awarded contract to Windham Bros., Birmingham, Ala., to erect building;

four stories; cost \$45,000; plans by Frank M. Bainsdell, Little Rock. (Previously noted.)

Ga., Vidalia.—Ancient Free and Accepted Masons awarded contract to J. F. Darby, Vidalia, to erect lodge building.

Tex., Houston.—Sid Westheimer Company awarded contract to erect building to contain lodgerooms, etc. (See "Miscellaneous Structures.")

### BANK AND OFFICE

Ala., Birmingham.—Realty Construction Co. has contract to erect Chamber of Commerce building; plans by William Leslie Welton, Birmingham. (Recently noted to cost \$15,000.)

Miss., Biloxi.—Louis Hahn awarded contract to erect store and office building. (See "Stores.")

S. C., Spartanburg.—C. Brewster Chapman, New Jersey, awarded contract for 500 tons fabricated steel for office building to Roanoke Bridge Co., Roanoke, Va.; eight stories; steel, concrete and pressed brick; cost about \$200,000; awarded general contract to George A. Fuller Company, Munsey Bldg., Washington, D. C.; plans by Julius Harder, 120 W. 32d St., New York. (Recently more fully described.)

Tex., Cameron.—T. Henderson awarded contract to E. Eggert, Cameron, to erect office building; 30x60 feet; semi-fireproof construction; steam heat; electric lighting; metal roof; cost \$12,000; plans by Roy E. Lane, Waco, Tex. (Recently noted.)

Tex., Freeport.—Freeport National Bank, it is reported, awarded contract to V. W. Flowerree, Kansas City, Mo., to erect bank building; cost \$20,000. (Recently noted.)



## CHURCHES

Ark., Helena.—Methodist church awarded contract to W. A. Cann & Co., St. Louis, Mo., for plans for church building; gothic style; tower; gray mat brick; cost \$40,000.

Miss., Jackson.—Stewards First Methodist Church awarded contract to I. C. Garber to erect Galloway Memorial Church.

Okla., Caddo.—First Christian Church, A. C. Chaney, secretary, awarded contract to W. B. Young, Enid, Okla., to erect church building and Sunday-school room; 50x60 feet; ordinary construction; brick; hot-air heat; galvanized metal shingle roof; cost \$4000; plans by J. Hicks, Durant, Okla. (Recently noted.)

Tex., Wichita Falls.—First Christian Church awarded contract to Alex. Watson Construction Co., Dallas, Tex., to erect church building; cost \$30,000. Address The Pastor, First Christian Church.

Va., Stephen City.—Methodist Episcopal Church South awarded contract to J. L. Gardner, Stephen City, to erect building; brick; hot-air heat; lighting not determined; slate roof; cost \$3000; heating, lighting, furnishings and glass windows under separate contracts. (Recently noted.)

## CITY AND COUNTY

Ga., Augusta.—Hospital.—Special Hospital Committee of City Council awarded contracts for interior finishings and work not included in general contracts (already awarded) as follows: A. H. McDaniel, painting, \$5300; E. J. Erbeling, plumbing and fixtures, \$26,601; E. J. Erbeling, vacuum cleaning piping, \$445; E. J. Erbeling, gas-fitting, \$635; Whitney-Ingram Company, electric wiring, \$7500; Peters McKinney, Atlanta, Ga., telephones, \$2594; Otis Elevator Co., elevators, \$7145; E. J. Elberding, vacuum machine, \$2100; Lombard Iron Works, fire hose, \$411.35; Lombard Iron Works, boiler plant, \$4085; H. R. Heinicke, New York, chimney (brick), \$1595; Harrisburg Foundry and Machine Works, engines, \$2550; Fort Wayne Electric Co., generating switchboards and connections, \$3840; contract for all mechanical work, amounting to \$80,000, awarded to King Lumber Co., Charlottesville, Va., and for administration building to John H. McKenzie & Sons, Augusta; plans by G. Lloyd Prencher, Augusta. (Recently noted.)

## COURTHOUSES

Ark., Melbourne.—Izard county awarded contract to L. R. Wright & Co., Dallas, Tex., to erect courthouse; semi-fireproof construction; steam heat; electric lighting; metal tile roof; cost \$40,000; plans by Clyde A. Ferrell, Little Rock, Ark. (Previously noted.)

## DWELLINGS

Ala., Bessemer.—Dr. J. H. Downing awarded contract to Crowell Bros. Lumber Co. to erect seven dwellings.

Ala., Birmingham.—Henry Westall, Box 28, has plans by and awarded contract to Joy Construction Co., Birmingham, to erect dwelling; 36x60 feet; two stories and basement; brick veneer; hot-air heat; metal or composition roofing; cost \$7500. (Recently noted.)

Ala., Birmingham.—Mrs. P. P. Covington awarded contract to Waldhorst & Co. to erect one-story frame dwelling; cost \$3200. (Recently noted.)

Ala., Birmingham.—Journey & Chamblee have contract to erect dwelling; plans by Ben Price, Birmingham.

Ala., Birmingham.—Miller Bros. have contract to erect two-story brick-veneer residence; plans by Ben Price, Birmingham.

Ala., Gadsden.—Phi Burnett awarded contract to T. F. Marlow to erect two cottages; cost \$5000.

D. C., Washington.—Mrs. C. V. Riley, 1754 S St. N. W., awarded contract to Andrew Murray, 729 12th St. N. W., Washington, to erect residence; 40x60 feet; ordinary construction; hot-water heat; green slate roof; cost \$25,000; plans by A. P. Clark, Jr., 816 14th St. N. W., Washington. (Recently noted.)

Fla., Fort Myers.—Mrs. Olive E. Stout awarded contract to M. S. Gonzales to erect two-story frame building; upper floor for residence; lower floor for Fort Myers Press.

Fla., Lakeland.—Methodist church awarded contract to Marshall & Sanders to erect parsonage.

Fla., Lakeland.—John F. Cox awarded contract to erect 14 cottages.

Fla., Orlando.—C. E. Graham, Greenville, S. C., awarded contract to Hanner Bros. to erect residence; mission style; frame and

stucco; cost about \$8000; plans by Murray S. King, Orlando.

Ga., Americus.—John Sheffield has plans by T. F. Lockwood, Columbus, Ga., to erect two-story brick-veneer residence; vapor heat; metal roof; hardwood floors; cost \$10,000; contract awarded to Little & Phillips, Cordele, Ga.

Ga., Atlanta.—Williams-Hartsook Company awarded contract to Decatur Tile & Construction Co. to erect one-story frame dwelling; cost \$3200.

Ga., Columbus.—B. Hill awarded contract to Georgia Lumber Co. to erect residence; two stories; fireproof; metal shingle roof; cost \$5000 to \$6000; plans by T. W. Smith & Co. (Recently noted.)

Ga., Lagrange.—C. V. Truitt awarded contract to C. Frank Grandy, Beattie Bldg., Greenville, S. C., to erect residence previously noted; 62x62 feet; brick veneer; slate roof; cost \$25,000; cost of heating and lighting \$3000; plans by P. Thornton Marye, Candler Bldg., Atlanta, Ga. (See "Machinery Wanted.")

Ga., Savannah.—Mrs. W. T. Sawyer, 504 Perry St. W., has plans by and awarded contract to J. Steinacker to erect several dwellings; one story; four rooms; cost \$10,000. (Recently noted.)

Ky., Pineville.—W. L. Moss awarded contract to Wm. Jones, Barbourville, Ky., to erect residence; cost \$15,000; plans by R. F. Graf & Son, Knoxville, Tenn.

La., New Orleans.—Peter Rupp awarded contract to J. W. Lennox, Algiers, Station A, New Orleans, to erect two cottages.

Md., Baltimore.—Mrs. Margaret Carrick, 142 Dolphin St., awarded contract to erect store and dwelling. (See "Stores.")

Md., Baltimore.—George T. Phillips, 2041 E. Baltimore St., awarded contract to A. E. Boteler to erect residence on Charles St. north of Merryman's La.; two and a half stories; brick; 50x50 feet; rear wing 30x32 feet; slate and tile roof; steam heat; cost \$25,000; plans by Mottu & White, 322 N. Charles St. (Recently noted.)

Md., Catonsville.—Dr. F. H. Baetjer awarded contract to J. H. Gerwig, Catonsville, to remodel residence; stucco exterior; construct several porches, install plumbing, steam heat, electric lights, etc.; plans by Walter M. Gieske, 66 Gunther Bldg., Baltimore, Md.

Md., Cumberland.—Irving Rosenbaum awarded contract to Silas W. Wise to erect residence; plans by Holmboe & Lafferty, Clarksburg, W. Va.

Md., Cumberland.—Harry and Joseph Footer awarded contract to Olin Gerlach, Frostburg, Md., to erect 14 dwellings; two stories; slate roofs.

Mo., Kansas City.—R. A. Long awarded contract to Lonsdale Bros. to erect \$50,000 residence and \$30,000 barn at Longview; also erect implement-house, two additional barns, etc.; total expenditure, \$100,000; barn to be 250x45 feet; 22 box stalls and 18 single stalls; electric lights. (Previously noted.)

Mo., St. Louis.—Frank L. Dittmeier awarded contract to John Hartman, 7141 Vermont Ave., St. Louis, to erect several one-story brick cottages; mill construction; furnace heat; gravel and composition roof; cost \$2000; plans by C. W. Van Keuren, 806 Chestnut St., St. Louis. (Recently noted.)

N. C., Greensboro.—A. Y. Bond awarded contract to J. R. Truitt, Greensboro, to erect two dwellings; six rooms each; ordinary construction; hot-air heat; electric lighting; cedar shingle roof. (Recently noted.)

N. C., Greensboro.—E. E. White awarded contract to L. S. Reece to erect residence; eight rooms; hot-air heat; electric lighting; cost \$2500; plans by owner. (Recently noted under "Stores.")

N. C., Maxton.—J. M. Armstrong awarded contract to R. B. Waddell & Son to erect residence; cost \$7000.

N. C., Winston-Salem.—W. E. Dalton awarded contract to J. E. Kennerly to erect dwelling; two stories; nine rooms; slate roof; gas and electric lights; cost \$4500.

N. C., Winston-Salem.—B. F. Huntley awarded contract to J. E. Kennerly to erect residence; two stories; 19 rooms; frame and pebble-dash; cost \$4500.

Tenn., Memphis.—J. A. Stewart awarded contract to John Hughes to erect residence at Adams Ave. and Parkway; hollow tile and brick; stone trimmings; cost \$20,000; plans by John Galsford, Memphis.

Tenn., Memphis.—Miss M. Richardson awarded contract to H. H. Higbee to erect residence; cost \$3000.

Tenn., Memphis.—D. W. McKellar awarded contract to R. E. Gilbert Company, Mem-

phis, to erect three residences at 636, 640 and 644 Anderson St.; cost \$9000.

Tenn., Memphis.—Dean & Tindall awarded contract to J. B. Moody to erect residence at 1577 Peabody Ave.; cost \$5000.

Tenn., Memphis.—Miss Margerte Manley awarded contract to R. B. Neil, 32 N. Cooper St., Memphis, to erect proposed dwelling; 31x36 feet; hot-water heat; electric lighting; cypress shingle roof; cost \$4500; plans by Price, Broadwell & Mahan.

Tenn., Memphis.—Mrs. A. B. Harvey (not A. V. Hawley as recently stated) awarded contract to R. B. Neil, 32 N. Cooper St., Memphis, to erect dwelling; 31x36 feet; hot-water heat; electric lighting; cypress shingle roof; cost \$4500; plans by Price, Broadwell & Mahan.

Tex., Bay City.—Allen Stinnett awarded contract to erect residence.

Tex., Bay City.—Mayor Sutherland awarded contract to O. E. Hatchett to erect residence.

Tex., Caldwell.—J. W. Jenkins awarded contract to erect 10-room bungalow.

Tex., Cuero.—A. B. Davidson will expend \$6750 to erect residence; 56x36 feet; mill construction; steam heat; electric lighting; shingle roof; plans by Green & Finger, Houston, Tex.; contract recently noted awarded to Charles Fuess & Son, Cuero.

Tex., El Paso.—Mrs. Mararetta del Buono has plans by and awarded contract to S. E. Patton, Box 332, El Paso, to erect dwelling; 22x73 feet; two stories; brick; ordinary construction; asphalt and gravel roof; cost \$5500.

Tex., Hearne.—J. T. Welch awarded contract to Mr. Schmidt to erect two-story residence.

Tex., Hearne.—Mayor P. L. Brady awarded contract to Mr. Schmidt to erect residence in S. Hearne St.

Tex., Houston.—Sid Westheimer Company awarded contract to erect building to contain living apartments, etc. (See "Miscellaneous Structures.")

Tex., Houston.—R. L. Milam awarded contract to erect residence; two stories; 11 rooms.

Tex., Houston.—R. H. Ames awarded contract to erect residence.

Tex., Houston.—Miss Lulu Fellows awarded contract to erect eight-room residence.

Tex., San Antonio.—J. E. Wells has plans by and awarded contract to W. A. McArdle, 2904 W. Houston St., San Antonio, to erect eight-room dwelling; frame; fireplaces; shingle roof; cost \$5000. (Recently noted.)

Tex., Trinity.—George E. Poulter awarded contract to erect residence.

Va., Dublin.—W. H. Hawkins awarded contract to J. Foy Hall, Pulaski, Va., to erect residence; 10 rooms.

Va., Norfolk.—Ivor A. Page awarded contract to Mattox & Davis to erect residence; 40x40 feet; ordinary construction; hot-air heat; slate roof; cost \$8000.

Va., Norfolk.—C. Willis Cowper awarded contract to Brown & Whitney to erect two frame residences; cost \$4000.

## GOVERNMENT AND STATE

W. Va., Morgantown.—Postoffice.—Treasury Department, Oscar Wenderoth, supervising architect, Washington, D. C., awarded contract at \$2,503 to John G. Unkefer & Co., Minerva, O., to erect postoffice; sandstone construction. (Recently noted.)

## HOTELS

Ky., Pineville.—Continental Hotel Co. awarded contract to Wm. Jones, Barbourville, Ky., to erect hotel to cost about \$50,000; plans by R. F. Graf & Sons, Knoxville, Tenn. (Recently noted.)

Md., Baltimore.—Jerome H. Joyce has plans by Theodore Wells Pietsch, American Bldg., Baltimore, to remodel Hotel Joyce on Camden St.; will provide lobby about 30x50 feet, plumbing, artesian pumps, etc.; electric passenger and freight elevators; slag roof; contract awarded to Morrow Bros., Fidelity Bldg., Baltimore. (Recently noted.)

N. C., Southern Pines.—J. L. Pottle & Son awarded contract to J. J. Stroud, Warsaw, N. C., to erect hotel; cost \$35,000; plans by W. A. Ward, Port Chester, New York.

Tenn., Lawrenceburg.—Mrs. Dora Robertson awarded contract to erect Lawrenceburg Hotel; 50 rooms; brick. (Previously noted.)

## MISCELLANEOUS

Fla., Tampa.—Clubhouse.—Centro Asturiano Club awarded contract at \$102,500 to McGucken & Hyer, Tampa, to erect clubhouse

according to plans by Bonfoey & Elliott, Tampa; three stories; 200x170 feet; pressed brick and Bedford sandstone; marble trimmings; auditorium to seat 200; gymnasium, bowling alleys, etc.; fireproof. (Previously noted.)

Md., Baltimore.—Clubhouse and Hall.—Germania Maennerchor has plans by Walter M. Gieske, 66 Gunther Bldg., Baltimore, for clubhouse adjoining Lehmann's Hall and remodeling Lehmann's Hall; former three stories, 60x90 feet; German style; ball improvements to cost \$50,000; awarded contract to J. L. Robinson Construction Co., Knickerbocker Bldg., Baltimore. (Recently noted.)

Md., Baltimore.—Parish Hall.—St. Mary's Parish, Rev. G. A. Griffith, pastor, has plans by Archer & Allen, Central Savings Bank Bldg., Baltimore, to remodel Galtier Stables, at 406-08 Orchard St., into parish hall at cost of about \$10,000; awarded contract to Thos. P. Johns, 405 McCulloh St., Baltimore.

Mo., Kansas City.—Barn.—R. A. Long awarded contract to erect \$30,000 barn. (See "Dwellings.")

Tenn., Knoxville.—Clubhouse.—Cherokee Country Club awarded contract to Worsham Bros. to erect dining-room 40x90 feet; screened.

Tex., Houston.—Undertaking.—Sid Westheimer Company will erect undertaking establishment at Caroline St. and Prairie Ave., according to plans by G. W. Collignon, Houston; four stories and basement; will equip for morgues, dead vault, garage, living apartments and lodgerooms; passenger elevators; private telephone system to connect all floors; cost \$50,000. (Recently noted to have awarded contract to W. E. Woodruff.)

Tex., Palestine.—Undertaking.—Burrett Ezell awarded contract to J. B. Wynn to erect morgue and undertaking establishment; 25x100 feet; ordinary construction; asphalt and gravel roof; cost \$9000; cost of lighting plant \$300; cost of elevator \$200; plans by Mr. Brooks. (Recently noted.)

Tex., Welnar.—Charles Fahrenthold awarded contract to Stech Bros., Houston, Tex., to erect three buildings; brick. (Previously noted.)

## RAILWAY STATIONS, SHEDS, ETC.

Tex., Bellville.—Gulf, Colorado & Santa Fe Railway Co., F. Merritt, chief engineer, Galveston, Tex., awarded contract to Street & Born, Houston, Tex., to erect depot; red-faced brick joined with white cement mortar; dark-green glazed tile roof; 25x125 feet; white waiting-room, 22x25 feet; colored waiting-room, 23x25 feet; baggage-room, 22x25 feet; loggia, 22x23 feet; cost \$25,000; plumbing and heating contracts not awarded. (Previously noted.)

Tex., Cameron.—Gulf, Colorado & Santa Fe Railway Co., F. Merritt, chief engineer, Galveston, Tex., awarded contract to Street & Born, Houston, Tex., to erect station; 25x141 feet; white waiting-room, 41x25 feet; colored waiting-room, 25x25 feet; baggage-room, 22x25 feet; ticket office, 16x16 feet; corridor, 8x6 feet; white enameled brick; glazed green tile roof; open-air loggia, 22x25 feet, paved with vitrified brick and equipped with concrete benches; steam heat; concrete floors; vitrified brick platform 620 feet long; cost \$25,000; heating and plumbing contracts not awarded. (Previously noted.)

Tex., Caldwell.—Gulf, Colorado & Santa Fe Railway Co., F. Merritt, chief engineer, Galveston, Tex., awarded contract to Street & Born, Houston, Tex., to erect depot; Queen Anne style; steep gables; base of dark red tapestry brick, three feet six inches, surmounted by gray stucco; green tile roof; cost \$30,000; heating and plumbing contracts not awarded. (Previously noted.)

Tex., Houston.—Missouri, Kansas & Texas Railway, A. M. Acheson, chief engineer, Dallas, Tex., awarded contract at about \$100,000 to Fred A. Jones Building Co., Houston, to erect station; two stories; fireproof; concrete foundation; reinforced concrete, faced with brick, with stone and terra-cotta trimmings; tile floors; tile wainscoting six feet high; will also construct viaduct; train sheds; total cost about \$200,000; will also erect retaining walls along building; contract for this not awarded. (Previously noted.)

## SCHOOLS

Ga., Milledgeville.—Board of Education will rebuild Hopewell school recently damaged by storm; awarded contract to W. A. Torrance.

La., Opelousas.—Opelousas school district will vote April 16 on \$20,000 additional bonds to complete and equip school for which contract was awarded to Caldwell Bros., Abbeville, La. (Previously noted.)

S. C., Pomaria.—W. T. Livingston has contract to erect school; cost \$3800.

Tenn., Knoxville.—Knox County Commissioners awarded contracts to erect B. F. Young school as follows: Erection of building at \$15,500 to J. A. Cox; plumbing and heating at \$4974 to J. W. Wetherd; lighting at \$215 to Knox Electric Co. (Recently noted.)

Tex., Richards.—Trustees Richards Independent School District awarded contract to W. F. Miller to erect school; 52x72 feet; ordinary brick construction; shingle roof; cost \$5000. (Recently noted to cost \$50,000.)

Tex., Dialville.—School Board, J. H. Odom, president, awarded contract to C. P. Demsey to erect school. (Recently noted.)

Tex., Houston.—City awarded contract to G. Hartman & Co., St. Louis, Mo., at \$210,193 to erect South End junior high school; contract for plumbing awarded to Collins Plumbing Co. at \$9794; for heating and ventilating to Keithly Company at \$21,700. (Recently noted.)

Tex., Sherman.—City awarded contracts to erect school as follows: At \$35,964.50 to Reinheart & Donovan, Oklahoma City, Okla., for building; at \$6072 to Lewis & Ketchens, Kansas City, for heating and ventilating; at \$2100 to J. F. Madden, Sherman, for plumbing; plans by C. H. Page & Bro., Austin, Tex., call for 12 classrooms on first floor, office, etc.; fireproof. (Recently noted.)

Va., Carson.—Rowanta School District and Templeton School District awarded contract at \$4880 to W. J. Stout, McKenney, Va., to erect school; six rooms and auditorium; accommodations for 150 pupils. (Recently noted.)

## STORES

Ala., Birmingham.—J. H. Howard will expend \$4500 to repair structure on Fourth Ave. between 25th and 26th Sts.; contract awarded to R. A. Moody.

Ala., Birmingham.—A. L. Fulenwider awarded contract to M. C. Banks to erect store; cost \$4500. (Recently noted.)

Ala., Birmingham.—Magnolia Land Co. will erect two-story brick-vener building at 26th St. and Orange Ave.; cost \$4200; contract awarded to Miller Bros.

Ala., Birmingham.—Paul Locascio awarded contract to Windham Bros. to erect five one-story frame buildings; cost \$4000. (Recently noted.)

Ala., Florala.—Lamar-Britton Mercantile Co., it is reported, awarded contract to J. F. Hughes to erect building; two stories; 50x103 feet.

Fla., Bartow.—J. N. Hooker awarded contract to W. L. Ellis to erect store; brick construction.

Fla., Miami.—Townley Bros. awarded contract to William A. Otter to erect Townley Block; three stories; reinforced concrete; cost \$122,000; plans by August Geiger, Townley Bldg., Miami. (Previously noted.)

Fla., Tampa.—McGucken & Hyer, Tampa, have contract to erect store and apartment building. (See "Apartment-Houses.")

Ga., Macon.—Stephen S. Shipps, 146 Georgia Ave., awarded contract for materials to remodel store 52x60 feet; brick front and rear; day labor. (Recently noted to cost \$4000.)

Md., Baltimore.—Charles Willms, 300 N. Howard St., awarded contract to Slinger-Pentz Co., 600 Equitable Bldg., Baltimore, to erect stores at 306x10 N. Howard St.; two stories; 50x120 feet; cost \$30,000; plans by Owens & Sisco, Continental Bldg., Baltimore.

Md., Baltimore.—Mrs. Margaret Carrick, 142 Dolphin St., awarded contract to Minor Bros., Inc., 224 W. Pratt St., Baltimore, to erect store and dwelling at 142 Dolphin St.; three stories; cost \$7800; plans by B. W. Minor, 224 W. Pratt St., Baltimore.

Miss., Biloxi.—Louis Hahn awarded contract to O. E. Thompson to erect building; two stories; brick; lower floor for stores; upper floors for offices; cost \$8000.

Mo., Kansas City.—Rumley Products Co., Laporte, Ind., it is reported, awarded contract to MacLean Construction Co., Chicago, Ill., to erect branch building; four stories; 113x286 feet; designed to be extended to length of 528 feet; cost \$175,000.

N. C., Greensboro.—North Carolina Trust Co. awarded contract to remodel store building; 51x93 feet; metal roof; cost \$4000; also awarded contract to erect store building; 50x100 feet; ordinary construction; metal and tin roof; cost \$8000. (Recently noted.)

Okla., Enid.—J. S. Featherstone will erect two warehouses to be occupied by J. I. Case Threshing Machine Co. and National Biscuit Co.; former 50x125 feet; plate-glass front; automobile showroom in front 30x36 feet;

latter 40x125 feet, fireproof; reinforced concrete, with story and sub-story; awarded contract for cement work to Donoho & Wheeler.

Okla., Muskogee.—Sidener & Dills will expend \$8000 to erect store building; 38x95 feet; two stories; fireproof construction; gravel roof; plans by H. H. Nieman, Barnes Bldg., Muskogee; contract recently noted awarded to E. W. Furry, 405 Iowa Bldg., Muskogee.

S. C., Greenwood.—Bailey estate awarded contract to Griffin Construction Co., Atlanta, Ga., to erect store building to be occupied by Jay-Smith Clothing Co.; fireproof; two stories; cost \$10,000.

Tenn., Memphis.—Loeb & Co. awarded contract to G. Mohn & Son for improvements to building at 268x72 Madison Ave.; cost \$7500.

Tenn., Nashville.—J. S. Reeves Company awarded contract to H. Griffin & Bros. (not H. Griffin & Bros. as recently reported), Nashville, to erect store building; 50x104 feet; ordinary construction; elevator; asphalt roof; cost \$15,000; plans by Charles A. Ferguson, Nashville; all contracts let.

Tex., Mason.—C. S. Yedder, Ed Lemberg

and E. W. Kothmann awarded contract to erect three one-story rock store buildings; cost \$6500.

Tex., Wharton.—Burger & Robertson awarded contract to George B. Pickitt, Wharton, to erect store; 27x70 feet; two stories; brick; gravel roof; cost \$6000; plans by J. Leffland & Son, Victoria, Tex. (Recently noted.)

W. Va., McMechen.—Lineberger & Hunter awarded contract to William Riggs to erect addition to store.

## THEATERS

Tex., Corsicana.—J. E. Whiteselle awarded contract to Berry & Metcalf to erect brick theater; cost \$6000.

## WAREHOUSES

La., Baton Rouge.—Holmes & Barnes awarded contract to J. A. Petty, Godchaux Bldg., New Orleans, to erect warehouse; 98x212 feet; ordinary construction; composition pitch and shell roof; cost \$33,000; plans by Favrot & Livaudais, New Orleans. (Recently noted at New Orleans.)

# RAILROAD CONSTRUCTION

## RAILWAYS

Ala., Birmingham.—The Birmingham, Ensley & Bessemer Electric Railway Co., says a report quoting G. I. Brown, general manager, will build a loop into West End.

Ala., Birmingham.—The Birmingham & Tuscaloosa Railway & Utilities Co., capital \$3500 (which, says a report, may be increased to \$1,000,000), has filed incorporation papers for the construction of a railway from Gadsden to Tuscaloosa, Ala., about 115 miles, via Attalla, Asheville, Birmingham and Bessemer; also the operation of a belt line at Tuscaloosa and boats and barges from there to Mobile and New Orleans. It is further contemplated hereafter to build from Gadsden to Chattanooga. Incorporators, C. R. Carter, C. A. Gannan and W. D. Adams. Morris Bros., bankers, 1421 Chestnut St., Philadelphia, Pa., are interested. George I. Brown, Birmingham, Ala., is general manager.

Ala., Birmingham.—President W. J. Harahan of the Seaboard Air Line is quoted saying that \$3,000,000 will be spent for construction on the system (mainly improvements) in the next two years, and that several big things are planned for Birmingham; also that it is intended to build an extension from Ohatchie to Anniston, Ala., about 19 miles. Definite plans are not ready for announcement. W. D. Faucette, Portsmouth, Va., is chief engineer.

Ala., Birmingham.—The Birmingham, Ensley & Bessemer Electric Railway has completed its East Lake extension and put it in regular service.

Ala., Fairhope.—Directors are reported elected for the People's Railroad, which is to be 11 miles long from Fairhope via Silverhill to Robertsdale, Ala., thus: Marion Smith, F. L. Brown, T. M. Hill, J. A. Patterson, A. O. Berglin, W. P. Minnich and A. M. Troyer of Fairhope; Rev. C. G. Johnson, Chas. Lyrene, O. S. E. Winberg and Oscar Johnson of Silverhill, and Edward Dickinson, E. S. Hart, Oscar H. Johnson and W. A. Stoddard of Robertsdale, Ala. Ernest B. Gaston of Fairhope is president. Local subscriptions of cash and labor are being secured at Silverhill and Robertsdale, and will soon begin at Fairhope. B. F. Bond is chief engineer.

Ala., Gadsden.—The Southern Railway is reported placing piling for reconstruction of bridges between Gadsden and Attalla, Ala. Also understood that new rails will be laid, and it is rumored that the line will be rebuilt to Rome, Ga. B. Herman is chief engineer maintenance of way, Washington, D. C.

Ala., Halston.—The McLean Lumber Co. is grading for a logging railroad from 10 to 18 miles long from Halston toward Aliceville, Ala. Country level. Recently referred to as Ray Lumber Co. H. R. Ray is interested.

Ala., Sweetwater.—The Alabama & Northwestern Railroad has completed its extension of several miles to Sweetwater, and is reported to have put it in service. John T. Cochrane of Mobile is president.

Ga., Atlanta.—President Finley of the Southern Railway has authorized the double-tracking of the main line between Armour and Cross Keys, Ga., hitherto a single-track gauntlet in the double track between Atlanta and Gainesville, Ga. Grades will be reduced and much curvature eliminated. Construction to begin as soon as practicable. W. H.

Wells, Washington, D. C., is chief engineer of construction.

Ga., Gainesville.—The Gainesville & Northwestern Railway is reported practically complete to Helen, where the Byrd-Matthews Lumber Co. plant is situated, and a regular schedule is to be established immediately.

Ga., Letford.—The Savannah & Southern Railway Co., with headquarters at Letford, Ga., is surveying for an extension from Willie to Glenville, Ga., 16 miles. It is also contemplated to finally extend from Speirs via Clyde to Savannah, Ga. W. G. Tuten is president; Stewart Starr, general manager.

Ga., Rome.—Louis Spence Daniel, managing director Manufacturers and Merchants' Association of Floyd county, Georgia, says he is issuing call for mass meeting at Rome between March 25 and March 30 to discuss the proposition to build an electric passenger and freight railroad from Gadsden, Ala., to Rome via Center, Cave Spring, etc., along the south bank of the Coosa River, about 60 miles. Efforts are being made to obtain financing.

Ky., Paintsville.—The Big Sandy & Kentucky Railway Co. is reported to have let contract to John O. Kelley of Portsmouth, Va., for construction of 10 miles of its proposed line, which is to be 31 miles long, from Stafford Station, on the Chesapeake & Ohio Railway, to Mill Site, in Breathitt county, Ky. Headquarters at Ashland, Ky. Directors: W. H. Dawkins, president and general manager; T. N. Fannin, vice-president; L. N. Davis, secretary and treasurer; John T. Adams and George B. Martin.

Md., Cambridge.—E. A. Jones, Cambridge, says that the Cambridge & Chesapeake Railroad Co. proposes to build a line 25 miles long from Cambridge to Fox Creek, Md., via Church Creek, Madison and Taylor's Island, which would require a very few short bridges. Incorporators, E. A. Jones of Cambridge, Elias Jones of Baltimore, H. F. Nicols of East New Market, Md., Victor C. Carroll of Cambridge and Wm. F. Applegarth of Golden Hill, Md.

Miss., Biloxi.—President W. G. Seaver of the Mississippi Northwestern Railroad Co. announces that W. S. Cartter is appointed superintendent of construction for its proposed line from Biloxi to Vicksburg, Miss., and beyond.

Miss., Leakesville.—N. E. Turner, president Alabama & Mississippi Railroad Co., Vinegar Bend, Ala., says it is not constructing a line from Leakesville to Evinston, but is only building a short spur to a turpentine orchard. This denies a recent press report.

Mo., St. Louis.—Victor J. Miller, 619 National Bank of Commerce Bldg., St. Louis, says that the St. Louis, Afton & Sunset Railway Co. proposes to build about 4½ miles of line from Afton to Sunset south of Gravois Rd. Not prepared to say when bids for construction and equipment will be asked. Officers not yet elected.

N. C., Black Mountain.—The railroad which, according to recent reports, will be built from Burnsville to Weaverville, N. C., about 29 miles, is not proposed by Dickey, Campbell & Co., Inc., lumber manufacturers of Black Mountain, but it is understood will be a branch of the Carolina, Clinchfield & Ohio Railway from a point on its main line, near Booneford. Ward Crosby, chief engineer of the Clinchfield Railway at Johnson City, Tenn., may give information. (See Manufacturers Record March 6.)

N. C., Canton.—The Richland Railroad Co. of Canton has been chartered to take over a railroad now operating from Hazlewood to Quinlantan, six miles, and extend it to 10 miles. Authorized capital, \$50,000, with \$10,000 paid in by Reuben B. Robertson, Charles S. Bryant and others.

N. C., Charlotte.—Interests in the Southern Power Co. and controlling the Piedmont Northern Lines (the interurban electric railway from Charlotte to Gastonia, N. C., and also from Greenville to Greenwood, S. C.) have, it is announced, acquired control of the Fries Manufacturing & Power Co. of Winston-Salem, N. C., in which they have held a large block of stock for some time, and it is now considered assured that the interurban will be extended to that city as has been reported. W. S. Lee, Charlotte, vice-president of the power company, may give information.

N. C., Lillington.—The Atlantic & Western Railway, it is announced, has completed its extension to Lillington, N. C., and is operating it.

N. C., Rocky Mount.—Frank S. Spruill of Rocky Mount is quoted saying that the North State Railway Co. has been chartered to build a line from Bunn to Raleigh and perhaps beyond, and that the Montgomery Lumber Co., Springhope, N. C., is interested.

N. C., Selma.—A bill to incorporate the Selma, Louisburg & Northern Railroad Co. has been introduced in the Legislature at Raleigh.

N. C., Thomasville.—The Carolina & Yadkin River Railroad, says a report, has awarded contract to C. W. Lane & Co. of Atlanta, Ga., to build an extension from Thomasville to High Point, N. C., about eight miles.

Okla., Nowata.—The Kansas-Oklahoma Traction Co. of Nowata, capital \$100,000, has been granted charter to build an interurban railway from Coffeyville, Kans., via Nowata and Collinsville to Tulsa, Okla., about 70 miles. Estimated cost from \$30,000 to \$40,000 per mile. Headquarters at Nowata and Coffeyville. Incorporators, D. H. Siggins and H. A. Siggins of Warren, Pa.; W. E. Ziegler of Coffeyville, J. E. Campbell and E. B. Lawson of Nowata.

Okla., Stillwater.—Louis James Lampke of Stillwater says that the proposed track of the Oklahoma Public Service & Interurban Lines is to be 139 miles long from Morrison to Guthrie, Okla., via Stillwater, Perkins, Coyle and Langston. There will be three steel bridges and some pile trestling; country rolling; contractor, Knickerbocker Construction Co., 60 Maiden Lane, New York, and also of Stillwater, Okla.; president, W. C. Toomey, 60 Wall St.; vice-presidents, A. J. Lampke, 27 Cedar St., and Elliot Norton, 5 Rector St.; D. W. Armstrong, Jr., treasurer, 55 John St., all of New York city; Henry G. Lytle, secretary, Brooklyn, N. Y.; Louis James Lampke, general manager and chief engineer, Stillwater, Okla.

S. C., Timmonsville.—President W. R. Bonal, South Carolina Western Railway Co., Hamlet, N. C., denies the recent press report that it would build an extension from Timmonsville to Olanda, S. C. It has not even been considered.

Tenn., Dyersburg.—Chicago, Memphis & Gulf Railroad Co. has filed incorporation articles in Kentucky; capital \$1,000,000. Incorporators are officers of the Illinois Central Railroad, thus: C. H. Markham, president; W. L. Park, vice-president; Blewett Lee, general solicitor; M. P. Blauvelt, comptroller, all at Chicago, and M. Rice. The road, with headquarters at Dyersburg, Tenn., was recently acquired by the Illinois Central. It extends from Dyersburg to Hickman, Ky., and may be extended.

Tenn., Iron City.—About 25 per cent. of grading is reported completed on the Tennessee Western Railway under construction from Iron City to McGlamery's Stand, about 20 miles. Lacy, McDowell & Co. are general contractors. Rumored that an extension will be built to the Tennessee River, and perhaps to Corinth, Miss. W. W. Collin, Hermitage Hotel, Nashville, Tenn., is president.

Tex., Austin.—John W. Maxcy of Houston is quoted saying that financial arrangements are made to build the proposed interurban railway from Houston to Lockhart, Tex., about 30 miles, and that engineers are making survey.

Tex., Belton.—The Quannah, Seymour, Dublin & Rockport Railroad Co., which has graded 10 miles between Belton and Salada, has ordered final survey at Graham, Tex. Officers are elected thus: I. E. Walker of Austin, Tex., president; Edward Cowper-Thwaite of London, England, vice-president; W. R. Davis of Austin, vice-president; S. R. Fuller, secretary; H. Pfafflin, treasurer;



Tyler, Hubbard & Tyler of Belton, general attorneys; R. Y. Walker of Belton, chief engineer.

Tex., Bronson.—The Knox Lumber Co., says a report, has laid seven miles of track on the Lufkin, Hemphill & Gulf Railroad, leaving less than four miles to reach Hemphill.

Tex., Galveston.—The Galveston-Houston Electric Co. is offering through Stone & Webster of Boston \$350,000 of 6 per cent. cumulative preferred stock, the proceeds to be applied for extensions and improvements. L. C. Bradley, manager Galveston Electric Co., can give information.

Tex., Dufkin.—The Interstate Development Co., organized under an Arizona charter, proposes to build a railroad from either Dallas or Fort Worth, Tex., to Port Arthur, Tex.; headquarters, Lufkin, Tex. Financial arrangements are reported in progress. Dr. R. B. Bledsoe is president, W. M. Glenn vice-president, W. R. McMullen treasurer, and P. A. McCarthy secretary, all at Lufkin. Colonel McCarthy is an engineer.

Tex., Farwell.—A syndicate composed of capitalists in Ohio and Pennsylvania is reported planning construction of a railroad from Farwell, Tex., to Rotan, N. M., about 325 miles, with a branch to the Dawson coal fields in New Mexico. J. V. Farwell of Chicago is said to be interested. Bonuses are being solicited from towns along the route.

Tex., Kenedy.—Preliminary survey is reported complete for 14 miles for the proposed railroad from Kenedy to Laredo, Tex., and will be pushed through immediately.

Tex., Pecos.—The Pecos Valley Southern Railway, says a report, will extend its line from San Salmon Springs to Alpine, Tex., about 50 miles; also about 200 miles north from Pecos to Tahoka. W. L. Carville, Dallas, Tex., is president; G. C. Mountcastle, Fort Worth, Tex., vice-president; L. W. Anderson, Pecos, Tex., general manager and chief engineer.

Tex., Riviera.—The Riviera Beach & Western Railway is reported to have completed and put in operation its line from Riviera to Riviera Beach, 10 miles. It may be extended to Kingsville. W. M. Jones is general superintendent.

Tex., Sterling City.—Engineers engaged in a survey near Sterling City are reported working for the Gulf, Colorado & Santa Fe Railway, which may extend from there to a point on the Texas & Pacific Railway. F. Merritt, Galveston, Tex., is chief engineer.

Tex., Temple.—W. S. McGregor of Temple and others here, it is stated, purchased the Temple Northwestern Railway and will extend it to Smithville, Tex., 35 miles. There are already four miles of track on the grade from Temple to Gatesville. Line will be called Temple, Northwestern & Gulf.

Va., Bluemont.—F. C. Wright, president Washington & Old Dominion Railway, 1517 H St. N. W., Washington, D. C., says it does not at this time contemplate an extension from Bluemont to Berryville, Va., although it has been rumored that the street-railway company at Winchester contemplated a line from there via Berryville to Bluemont.

Va., Norfolk.—The Norfolk, Yorktown & Washington Railway Co. will, it is stated, set an early date to receive bids for construction and equipment. Incorporators and directors are C. T. Hobart, president; L. C. Steel, vice-president; Harvey M. Dickerson, Louis Feurstein, Louis Mansbach, W. S. Dusch, George H. Lewis and C. T. Blake. There will be two important bridges, one of 200 feet and another of 700 feet, besides several of from 60 to 80 feet. Line will be 156 miles long from Norfolk via Yorktown to a point in Fairfax county near Alexandria, Va.

W. Va., Bluefield.—W. W. Boxley of Roanoke is reported to have contract from the Norfolk & Western Railway to build second track from Disputanta to Estes, Va.

W. Va., Fayetteville.—The Fayette Traction Co., with proposed capital of \$50,000 and \$35,000 subscribed, is to build a trolley railway 4½ miles long from Fayette to Fayetteville, W. Va., along Gentry road, a county highway. There will be about six stone and concrete bridges. Country rough. Incorporators are George Love, R. H. Dickinson, A. W. Hamilton, C. W. Dillon, E. L. Nuckolls, M. M. Malcolm and R. L. Carter of Fayetteville.

W. Va., Logan.—The Chesapeake & Ohio Railway Co. is building an extension of 6.3 miles to its Logan & Southern branch. Contractors are now at work. This refers to the recent report that an extension would be constructed up Island Creek.

W. Va., Martinsburg.—The organization meeting of the incorporators of the Williamsport, Nesale & Martinsburg Railway Co., which proposes to build a line from

Williamsport, Md., to Martinsburg, W. Va., about 12 miles, and perhaps elsewhere, is called for March 22 at the offices of Martin & Selbert, People's Trust Bldg., Martinsburg. Incorporators are Alex. Clohan of Martinsburg, Alex. J. Diedrich, E. V. Hoffman and John P. Michael of Baltimore, and Wm. Deale of Hamilton, Md.

W. Va., Martinsburg.—Incorporators of the Shenandoah Valley Railway Co. are to meet March 24 for organization in the People's Trust Building, Martinsburg. Proposed lines are from Martinsburg to near Williamsport, Md.; also from Martinsburg to Winchester, Charles Town and Shepherdstown, W. Va. Benjamin Britt of Clarksburg, W. Va., is chief engineer. Incorporators are F. E. Wilson, John W. Stewart, Gray Silver, S. N. Myers, J. Whann McSherry and Clarence E. Martin, all of Martinsburg, W. Va.

W. Va., Wheeling.—The West Virginia Traction & Electric Co., it is reported, will build a rapid transit line to Elm Grove via Steenrod's Addition to Mount de Chantal and thence to the park. Henry Warfield is president.

### STREET RAILWAYS

Fla., Miami.—The Lawrence Estate Co., S. M. Tatum, president, and J. R. Tatum, secretary, has obtained a street-railway franchise from Ave. M on 12th St., making a loop through the Lawrence estate property.

Fla., St. Petersburg.—The contemplated extension of the street railway to Big Bayou would be 2½ miles long. B. M. Measey, Walter Fuller and others are said to be interested.

Ga., Athens.—The Athens Railway & Electric Co. is reported considering a plan suggested by D. G. Anderson & Co., real estate agents, to build an extension of about 2½ miles.

Ga., LaGrange.—The Chamber of Commerce is reported working on plans to secure construction of a street railway. Address The Secretary.

Miss., Vicksburg.—The Vicksburg Transit Co., it is announced, will survey and build an extension of the Cemetery street-car line to the farthest east gate of the Cemetery.

S. C., Spartanburg.—The South Carolina Power, Light & Railways Co. of Spartanburg proposes to spend \$50,000 to improve its street railway.

Tex., Greenville.—The Greenville Electric Street Railway Co. is reported to have taken over from the Greenville Development Co. the street-car line from Greenville to Mineral Heights, about three miles, and it is to be completed immediately. Albert Emanuel is president and F. R. Newman manager.

Va., Richmond.—The Virginia Railway & Power Co., says a report, has been granted franchise to build a line on Franklin St.

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

**Aluminum Sulphate.**—Office of City Water-works, City Hall, Richmond, Va. Proposals received until March 21 for furnishing 500 tons aluminum sulphate, high basicity, for water clarification, containing 17 to 22 per cent. aluminum oxide, delivered f. o. b. Korah Station, Chesapeake & Ohio Railway, in barrels; also for furnishing 40 tons aluminum sulphate, high basicity, for water clarifications, containing 17 per cent. aluminum oxide, delivered in barrels, South Richmond (formerly Manchester); further information on application; certified check \$300; E. E. Davis, superintendent.

**Automobile Trucks.**—Geo. D. Bizzell, Goldsboro, N. C.—Addresses of manufacturers of automobile trucks; view to representation.

**Automobiles.**—J. S. Fitzgerald, Lenoir City, Tenn.—Catalogues, etc., from manufacturers of automobiles.

**Bank Fixtures.**—Farmers and Merchants' Bank, William Abernethy, president, Kensett, Ark., wants prices on bank fixtures.

**Bank Protection.**—Office Board of Commissioners, J. M. Sentell, president, Caddo Levee District, Shreveport, La. Proposals received until April 2 for bank protection work in following-named reaches: Scott's Slough 2500 feet, deposit \$700; Rattling Slough 2500 feet, deposit \$700; Havana 2500 feet, deposit \$700; Corner Place 3000 feet, deposit \$600; Fire Point 2000 feet, deposit \$600; Silver Point 2000 feet, deposit \$600; Twelve-Mile Bayou 3000 feet, deposit \$800; Dixie 2000 feet, deposit \$600; Lucas 3000 feet, deposit \$800; Leonard 2500 feet, deposit \$700; Long Point 2000 feet, deposit \$600; Campo Bello 2000 feet, deposit \$600; proposals on one reach or upon whole; information on application to Board of State Engineers, Room 213 New Orleans Court Bldg., New Orleans, La.

**Beauxite.**—L. H. Krieter, vice-president Indiana Sewer Pipe Co., Chicago, Ill.—In market for beauxite.

**Boiler.**—Tug Fork Planing Mill Co., Welch, W. Va.—100-horse-power boiler.

**Boiler.**—See "Engine and Boiler, etc."

**Boiler.**—See "Engine and Boiler."

**Boilers.**—E. A. Waitman, Waitman, Ky., wants prices on boilers.

**Bottle-cap Machinery.**—Arthur Bombay, Charlotte, N. C.—Information and prices on bottle-cap machinery for stamping, printing and waxing paper milk bottle caps.

**Bridge Construction.**—See "Levee and Bridge Construction."

**Brick Machinery.**—J. S. Poythress, Henderson, N. C.—Prices on equipment for brick plant of 20,000 daily capacity.

**Bricks.**—W. L. Moss, care Continental

Coal Corporation, Pineville, Ky.—Information and prices on paving brick for streets.

**Bridge Construction.**—Bids received until March 20 at office of State Highway Commissioner, P. St. J. Wilson, Richmond, Va., for construction of reinforced concrete bridge across Falling Creek, near Ashland, Va., in Hanover county; 36 feet long, 12-foot roadway; reinforced concrete; plans and specifications can be seen after March 6 at office of clerk of court, Hanover, Va., and of J. L. Saunders, Ashland, Va.; blueprints obtainable from Childrey-Sunday Company, Richmond, Va.

**Bridge Construction.**—Board of Public Improvements, St. Louis, Mo., opens bids March 21 for removal of present 12th St. bridge and construction of foundations and concrete work of reinforced concrete viaduct on 12th St. from Spruce St. to Chouteau Ave.; structure 79 feet wide, 3000 feet long; foundations to rest on concrete piles (molded and driven type), excepting a few piers which will extend to rock; entire bridge of reinforced concrete, with exception of one steel girder span protected with concrete; \$25 deposit for plans and specifications; L. R. Bowen, bridge engineer.

**Bridge Construction.**—Bids received at clerk's office, Princess Anne, Va., until March 30 for construction of bridge over Long Creek; plans and specifications on file at office of clerk; P. St. J. Wilson, State Highway Commissioner, Richmond, Va.

**Bridge Construction.**—Sullivan County Commissioners receive proposals until April 5 for construction of steel bridge across Holston River near Kingsport, Tenn., at residence of William Roller, commissioner, Kingsport; profiles and plans furnished on application to Mr. Roller.

**Broom-making Supplies.**—J. B. Willson, Harmony, N. C.—Broom corn and supplies for broom manufacture at Charlotte, N. C.

**Broom Machinery.**—A. J. Hollingworth, Clinton, Ky.—Catalogues and prices on broom machinery.

**Broom Machinery.**—Central Broom Manufacturing Co., L. H. Pyle, president, Conway, Ark.—Catalogues and prices on broom machinery; daily capacity 40 to 75 dozen.

**Building Fronts.**—Farmers and Merchants' Bank, William Abernethy, president, Kensett, Ark.—Prices on fronts for bank building.

**Building Material.**—A. E. Dickson, Box 948, Meble, Ala.—Prices on building material for 100x150-foot fireproof building at Houston, Tex.

**Building Materials.**—C. Grank Grandy, Greenville, S. C.—Prices on slate roofing and

limestone for \$25,000 residence at Lagrange, Ga.

**Building Materials.**—E. A. Waitman, Waitman, Ky.—Building material prices.

**Building Materials.**—Webster Woolen Mills Co., Webster, W. Va.—Building materials for mill buildings costing \$15,000 to \$20,000.

**Building Materials.**—Globe Fire Insurance Co., Van A. Webster, president, San Antonio, Tex.—Prices on material for \$5000 fireproof office building.

**Building Material and Equipment.**—Bryant & Stratton Business College (George W. Schwartz), Louisville, Ky.—Information relative to building material and equipment for \$100,000 business college.

**Building Materials.**—General Construction Co., 703 Louisville Trust Bldg., Louisville, Ky.—Information and prices on building materials for \$250,000 apartment-house.

**Canning Equipment.**—C. L. Wiseman, Keyser, W. Va.—Pulp machine and finishing machine for manufacture of tomato catsup; also bottles and labels.

**Canning Machinery.**—Appalachian Apple Orchards, Candler Bldg., Atlanta, Ga.—Catalogues and prices on equipment for small vegetable and fruit cannery.

**Canning Machinery.**—Norwood Canning & Manufacturing Co., L. W. Blount, manager, Norwood, La.—Prices on equipment for canning tomatoes and sweet potatoes.

**Car Replacers.**—Stanton Foundry & Machinery Co., Palatka, Fla.—Addresses of manufacturers of car replacers.

**Cars.**—Fayetteville Traction Co., Fayetteville, W. Va.—Prices on two second-hand closed trolley cars, about 30 or 40 capacity. Address R. H. Dickinson, Jr.

**Cement.**—U. S. Engineer Office, Wilmington, N. C. Proposals for Portland cement received until April 5, then publicly opened. Information on application. H. W. Stickle, Major, Engineers.

**Cement-block Machinery.**—W. E. Dunstan, Elizabeth City, N. C.—Prices on equipment for cement brick and block plant.

**Concrete-block Plant.**—H. W. Kahl & Sons, Oakland, Md.—Steel ash, steel reinforcement for girders, posts and beams, conveyor to convey from mixer to hopper, truck wheels, small steel rails, brick trucks, pony surfacer, eight-foot molder, four slides, lathe, one ampere combination gas engine dynamo direct connected, motor attached; to operate above machinery.

**Concrete Machinery.**—Petrons Manufacturing Co., Biloxi, Miss.—Prices on following concrete machinery: Mixing and molding machines; sewer and drain pipe making machines; clay and cement brick-making machines; power presses for stamping metal; stone crushers and pulverizers; conveyors; belting, shafting and pulleys; electric dynamos.

**Concrete Settling Basin.**—Board of Water Commissioners, Danville, Pa., will be ready in April for bids on reinforced concrete settling basin for filter plant; plans and specifications by Chester & Fleming, Union Bank Bldg., Pittsburgh, Pa.

**Conveying Machinery.**—See "Concrete-block Plant."

**Conveying Machinery.**—William Leslie Welton, Birmingham, Ala.—Prices on conveyor for three-story 15x175-foot warehouse.

**Corn Crusher.**—W. G. Weaver, Woolwine, Va.—Catalogues and prices on corn crushers and cob mill.

**Crates.**—Crozet Ice & Cold Storage Corporation, Crozet, Va.—List of manufacturers of peach crates (wooden bushel shipping crate, complete with inside basket).

**Cranes.**—John M. Greene, Drexel Bldg., Philadelphia, Pa.—One 10-ton and one 15-ton four or eight-wheel standard-gauge crane, equipped for clamshell. Give details first letter.

**Cranes.**—See "Drydock, etc."

**Drainage Canals.**—Bids received at office of Jones & Campbell, attorneys, Newport, Ark., April 4 for construction of 30 miles dredge ditches, according to specifications and estimates of engineer, Morgan Engineering Co., Memphis, Tenn., which will furnish information; bids on work as whole or in two parts; proposal bond (following form) required, or certified check for not less than 5 per cent. amount of bid; D. L. Shoffner, Shoffner, Ark., chairman Board of Commissioners.

**Drainage Ditch.**—See "Water-works, Sewers and Drainage Ditch."

**Drykiln.**—Tug Fork Planing Mill Co., Welch, W. Va.—Good drykiln.

**Drydock, etc.**—Proposals, endorsed "Proposals for Models," received at Bureau of

**Yards and Docks.**—Navy Department, Washington, D. C., until 11 A. M. March 15, 1913, then publicly opened, for models of drydock No. 4, Brooklyn, N. Y.; floating crane, Boston, Mass., and locomotive crane, Brooklyn, N. Y. Specifications obtainable on application to bureau. H. R. Stanford, Chief of Bureau, February 27, 1913.

**Electrical Equipment.**—E. A. Waltman, Waltman, Ky.—Prices on electrical equipment for residence.

**Electric Fixtures.**—First Baptist Church, James H. Parrish, secretary building committee, Room 8 Miller Law Bldg., Gainesville, Ga.—Prices on electric fixtures.

**Electric-light Plant.**—Proposals for electric-light system franchise for Alice, Tex., P. S. Anderson, clerk, received until March 17; bond \$1500; operation within four months from franchise date; maximum rates not higher than 20 cents a kilowatt for meter service, \$1 month for single lights and \$1.50 month for 100 kilowatts for use of city.

**Electrical Machinery.**—See "Engine and Boiler, etc."

**Electrical Machinery.**—See "Concrete-block Plant."

**Electrical Machinery.**—See "Wood-working Machinery."

**Electrical Machinery.**—See "Concrete Machinery."

**Electrical Machinery.**—Chipley Light & Power Co., A. A. Myers, Jr., president, Chipley, Fla.—Prices on engine, dynamo and other equipment for electric-light plant.

**Electrical Machinery.**—State Road Commission, William L. Marcy, secretary, 534 N. Howard St., Baltimore, Md., receives bids until March 27 for operating machinery and lighting for draw span of Sharpstown bridge over Nanticoke River in Dorchester and Wicomico counties; bids upon blank forms in book of specifications; latter furnished by Commission upon application and payment of \$2. (See "Road Construction.")

**Engine and Boiler, etc.**—Festus Glass Co., H. S. Warrick, manager, Festus, Mo.—Prices on engine and boiler, dynamo, motors and pumps.

**Engine.**—Webster Woolen Mills Co., Webster, W. Va.—Engine; 125 to 150 horse-power; 100 pounds steam pressure.

**Engine.**—Planters' Oil Mill & Gin Co., Kosciusko, Miss.—Prices on 100 to 125-horse-power Corliss engine; second-hand preferred.

**Engine.**—Norwood Canning & Manufacturing Co., L. W. Blount, Norwood, La.—Prices on small stationary engine.

**Engine and Boiler.**—H. M. White, Dillwyn, Va.—Second-hand 12 to 16-horse-power engine and boiler on wheels; good order; little used.

**Excavating Machinery.**—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa.—Second-hand 60-foot boom drag line excavator.

**Fire Hydrants.**—See "Water-works Supplies."

**Fire-alarm System.**—Proposals received by Board of Commissioners, John D. Kelley, secretary, Galveston, Tex., until March 20 for furnishing 10-circuit combination storage battery, repeater and line-controlling switch-board; positive automatic fire-alarm repeater arranged for eight box circuit fire and two local alarm or independent circuit; two wood battery racks, equipped with porcelain insulators, glass strips and fuse blocks, each block having sufficient capacity to accommodate 250 cells of the "B. T." storage battery; 150 "B. T." glass jars and 150 covers for same; 150 couples (positive and negative plates); 10 positive terminal plates of "B. T." type; 10 negative plates of "B. T." type; time and date stamp box or signal wheel transmitter; 18-inch electro-mechanical gong, combined with punching register; 10 ornamental posts, complete, with 10 positive non-interfering and successive fire-alarm boxes; prices f. o. b. Galveston; bond 50 per cent. contract price; certified check 5 per cent. amount bid; John H. Germand, chief engineer.

**Gasoline Reduction Plant.**—Pole Creek Oil & Gas Co., 512 Campbell Bldg., Oklahoma City, Okla.—Bids on plant for reduction of gas to gasoline; unit plan, to handle about 4,000,000 cubic feet daily; estimates to include cost of erection; bids closed March 17. Address K. Marston Seville, engineer in charge, 517 Campbell Bldg.

**Grinder and Press.**—Park Garage, Victoria, Tex.—Prices on grinder and press.

**Grist Mill.**—J. J. Alexander, Cadiz, Ky.—Equipment for mill; daily capacity 50 to 100 bushels cornmeal.

**Grinding and Bolting Machinery.**—Wyandotte Tripoli Co., Miami, Okla., opens bids April 1 for installing grinding and bolting machinery.

**Heating Plant.**—William Leslie Welton, Birmingham, Ala.—Hot-water heating plant.

**Hardware.**—See "Wire Handles, etc."

**Hoisting Machinery.**—Cohutta Talc Co., Dalton, Ga.—Second-hand steam power hoisting outfit, 6 to 10 horse-power, for mining.

**Heating Plant.**—C. Frank Grandy, Greenville, S. C.—Prices on heating plant for \$5,000 residence at Lagrange, Ga.

**Heating Plant.**—First Baptist Church, James H. Parrish, secretary building committee, Room 8 Miller Law Bldg., Gainesville, Fla.—Prices on steam-heating plant.

**Ice Plant.**—H. O. Lyne, Orange, Va.—Prices on installation of ice plant in town of about 1000.

**Ice Plant.**—H. M. White, Dillwyn, Va.—Circulars and prices on small ice plant.

**Iron.**—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. April 1, then publicly opened, to furnish at Navy-yard, Washington, D. C., a quantity of pig-iron. Applications for proposals should refer to schedule 5259. Blank proposals furnished upon application to bureau. T. J. Cowie, Paymaster-General, U. S. N.

**Jail Equipment.**—James F. Gause, Jr., 29 Odd Fellows Bldg., Wilmington, N. C.—Correspondence with manufacturers of cells, cages and other furnishings.

**Lace-making Machinery.**—Miss Lucy Driscoll, Shiro, Tex., R. F. D. 1.—Informa-

**Locomotives.**—John M. Greene, Drexel Bldg., Philadelphia, Pa.—Prices on 22 or 25-ton standard-gauge saddle-tank locomotive; also 10-ton 24-inch-gauge locomotive. State condition.

**Lumber, etc.**—First Baptist Church, James H. Parrish, secretary building committee, Room 8 Miller Law Bldg., Gainesville, Fla.—Prices on lumber and finishing material.

**Machine Tools, etc.**—Southern Pipe & Foundry Co., Lock Drawer 905, Birmingham, Ala.—16-inch by 12-foot engine lathe, 7 feet between center; 22-inch by 12-foot engine lathe, 7 feet between center, taper attachment; one 20-drill press, back-geared; one 20-drill press, plain; one 24-drill press, with patent tapping attachment; 17-inch high-speed shaper; 36-inch open-side planer, 8-foot bed; 28-inch by 8-foot planer; 33-inch band saw; 16-inch jointer; 24-inch wood lathe.

**Metal Frame.**—Lapel Bottle Co., Lapel, Ind.—Second-hand suspension-roofed metal frame, corners 16 to 20 feet, for factory building.

**Metal-working Machinery.**—See "Concrete Machinery."

**Mining Machinery.**—Pineville Coal Mining Co., R. W. Creech, president, Harlan, Ky., opens bids August 1 for mining machinery.

**Mining Machinery.**—See "Sand and Gravel Machinery."

**Packages.**—Standard Supply Co., Gibbs

office of C. B. Cooke, City Engineer, City Bldg.

**Paving.**—Proposals on forms furnished by city and addressed to Mayor and Council of Washington, Ga., received until April 2 for material, equipment and construction of about 20,000 square yards street paving; vitrified brick, bitulithic, granitoid, wood block, sheet asphalt and asphaltic concrete considered, with specified drainage and curb; \$2500 certified check; plans and specifications at City Clerk's office and at offices of engineer, H. S. Jaudon Engineering Co., Box 582, Savannah, Ga.; specifications obtainable from engineer; A. G. Cozart, City Clerk. (Recently noted.)

**Paving.**—Proposals received at office of City Engineer, Birmingham, Ala., until 3 P. M. March 18 for about 75,000 square yards street paving as follows: 15,000 square yards asphalt, bitulithic, asphaltic concrete or bituminous concrete; 35,000 square yards asphalt or bitulithic; 15,000 square yards asphalt, bitulithic or wood blocks; 10,000 square yards plain concrete; specifications obtainable from and plans examined at office of Walter G. Kirkpatrick, City Engineer. (Recently noted.)

**Peanut Machinery.**—Southwestern Manufacturing Co., 323 E. California Ave., Oklahoma City, Okla.—Catalogues, data and prices on peanut-handling machinery especially suited to Spanish peanuts.

**Poultry Supplies.**—J. S. Fitzgerald Company, Lenoir City, Tenn.—Catalogues, etc., from manufacturers of and dealers in poultry supplies.

**Preserving Machinery.**—See "Canning Machinery and Equipment."

**Printing.**—Mountain City Fire Insurance Co., Greenville, S. C.—Prices on insurance printing.

**Pumps.**—See "Engine and Boiler, etc."

**Pumps.**—E. A. Waitman, Waitman, Ky.—Prices on pumps.

**Pump.**—Alto Gin & Crate Co., Box 180, Alto, Tex.—Pump and pump jack for raising water from 140-foot well (standing 20 feet in water) to 25 feet above ground.

**Railings, etc.**—Proposals received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until March 27 for furnishing railings for spillway dams and steel doors for entrances to operating tunnels of all locks on Panama Canal; blanks and general information relating to this circular (765) obtainable from this office and offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and 1086 North Point St., San Francisco; also from United States Engineer offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Mobile and Galveston; Commercial Club, Kansas City; Chamber of Commerce, Quincy, and Commercial Club, Tacoma. F. C. Boggs, Major, Corps of Engineers, United States of America.

**Rails.**—S. H. Baker, Box 884, Richmond, Va.—Prices on several miles 50 and 56-pound laying rails; would consider small lots. Give location first letter.

**Rails.**—Fayette Traction Co., Fayetteville, W. Va.—Prices on second-hand 60 and 75-pound rails. Address R. H. Dickinson, Jr.

**Riprap Construction.**—United States Engineer Office, 305 Southern Bldg., Washington, D. C.—Proposals received until April 7 for repairing and extending riprap jetties in Urbana Creek and Milford Haven, Va. Information on application. W. C. Langditt, Lieutenant-Colonel, Engineers.

**Road Construction.**—State Roads Commission, William L. Marcy, secretary, 534 N. Howard St., Baltimore, Md., invites proposals for building 11 sections of State highway, aggregating 21.55 miles, as follows: Baltimore county, one section, .50 mile (concrete or Topeka), another section, 1.45 miles (macadam or concrete); Carroll county, 4.49 miles (macadam or concrete); Montgomery county, 4.12 miles (macadam or concrete); St. Mary's county, 5 miles (gravel or concrete); Somerset county, about 3.09 miles (concrete); Talbot county, 2 miles (macadam or concrete); also for operating machinery and lighting for draw span of Sharpstown bridge over Nanticoke River in Dorchester and Wicomico counties; proposals received until March 27, then opened; bids upon blank forms in book of specifications; latter furnished by Commission upon application and payment of \$2 for each section; blueprints of each section furnished at 25 cents for each half mile; certified check \$500.

**Road Machinery, Engineer, etc.**—Board of Road Commissioners, J. A. Abernethy, chairman, Lincoln, N. C.—To engage engineer and contractors for grading

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tion, catalogues and prices on lace-making machines.

**Lathes.**—See "Woodworking Machinery, etc."

**Laundry Machinery.**—Gem City Steam Laundry (E. M. Miller, interested, Box 415), Salisbury, N. C.—Bids on steam-laundry machinery.

**Levee and Bridge Construction.**—Proposals addressed to City Council, Augusta, Ga., received by Canal and River Commission at Augusta, Ga., until March 26 for furnishing necessary outfit and construction of earth levee along river bank from Hawks Gully to 6th St.; requires about 250,000 cubic yards; proposals also received until March 26 for erection of steel bridge on 13th St. and for masonry pier on which span will rest; these bids to be let in three contracts; deposit of \$500 required on earth embankment, \$200 on bridge and \$100 on pier; plans and specifications obtainable on application to Nisbet Wingfield, chief engineer, 747 Broad St., Augusta.

**Levee Work.**—Office Board of Commissioners, J. M. Sentell, president, Caddo Levee District, Shreveport, La. Proposals received until April 2 for reveting and securing, in accordance with plans and specifications of Board of State Engineers, 213 New Orleans Court Bldg., New Orleans, La., ends of line of public levee on or near upper and lower banks of Twelve-Mile Bayou; deposit \$100; information on application to Board of State Engineers.

**Lighting Plant.**—J. T. McCormack, Pearland, Tex.—Prices on lighting plant for 60 houses.

Bldg., San Antonio, Tex.—Addresses of manufacturers of packages for carrying butter and eggs by parcels post.

**Paving.**—City of Beaumont, Tex., receives bids—to be filed with J. G. Sutton, City Secretary, by March 18—for about 75½ yards paving on Neches St.; five-inch concrete foundation, with vitrified brick, asphalt, bitulithic, Uvalde rock asphalt or creosoted pine blocks or other material; also 490 linear feet concrete curbing; \$200 certified check.

**Paving.**—Bids received at office of secretary, George A. Stratman, Little Rock, Ark., March 24 for paving portions of various streets; certified check for \$1000; plans and specifications obtainable on application to Henry Levinson, engineer in charge.

**Paving.**—Bids received by city of Natchitoches, La., until April 1 for paving with gravel about 20,000 square yards of pavement on Washington, Jefferson and Paige Sts.; bids received on whole or part of work; certified check \$600; George W. Kile, Mayor. (Previously noted.)

**Paving, etc.**—Proposals received by Mayor and Board of Aldermen, Frederick, Md., until March 26 for following: Construction of about 500 linear feet sewers (6 to 12-inch), with inlets; paving about 5500 square yards; furnishing and setting 1000 feet curbing; \$500 certified check; plans, etc., with E. C. Crum, City Engineer.

**Paving.**—Bids received at office of Board of Control, Wheeling, W. Va., until March 27 for construction of stone and concrete curb and paving with brick and sheet asphalt or bitulithic on concrete foundation on certain streets; plans, blank forms, etc., on file at



sand-clay and macadam road; also improved appliances for building and finishing roads.

**Road Machinery.**—Office of Chatham County Commissioners and Ex-officio Judges, Savannah, Ga. Bids received until March 31 for furnishing road-making and road-repairing machinery, consisting of traction engine, graders, scarifiers, pulverizers and surfacing machines; prices f. o. b. Savannah; demonstrations invited at expense of bidders; Augustus B. Moore, member of committee on roads and streets.

**Rock-drilling Machinery.**—J. S. Wilson, Balley, N. C.—Information and prices on rock-drilling machinery.

**Roofing.**—See "Metal Frame."

**Sand and Gravel Machinery.**—Willard E. Winner, 806 Story Bldg., Los Angeles, Cal.—Machinery for sand and gravel business.

**Sewers.**—See "Water-works, Sewers and Drainage Ditch."

**Sewers.**—Board of Improvement, Sewer District No. 4, D. Ward Dunlap, secretary, Clarksville, Ark., receives bids until March 28 for furnishing materials and construction of sanitary sewer system and disposal plant; materials will consist of 23,250 feet 8-inch to 12-inch vitrified pipe, 62 manholes, 10 flush tanks and settling basin; plans and specifications obtainable from Winters & Dove, engineers, Fort Smith, Ark.

**Sewer Construction.**—Proposals for sewer construction, endorsed "Proposals for Sewers," received by Executive Board, Charlotte, N. C., until March 19 for furnishing any laying about 13,950 feet terra-cotta sewer pipe from 18 to 8 inches diameter, with necessary manholes and flush tanks; plans and specifications obtainable from office of Joseph Firth, City Engineer; A. H. Wearn, City Clerk.

**Sewer Construction.**—See "Paving, etc., Frederick, Md."

**Sewer Construction.**—Proposals, endorsed "Sewer Bids," received at office of A. N. Sloan, Commissioner Department of Streets and Sewers, Chattanooga, Tenn., until March 15 for construction of pipe sewer on A St., between 9th and 10th Sts., and on 10th, between Georgia Ave. and A St.; plans and profiles at office of City Engineer; blank forms, etc., on application; \$5000 bond; \$250 certified check.

**Shaft Couplings.**—H. C. C., care Manufacturers Record, Baltimore, Md., wants catalogues and other data on all kinds of shaft couplings.

**Seating.**—Grant City Improvement Co., W. V. Hauber, president, Grant City, Mo.—Prices on opera chairs.

**Sprinkler System.**—William Leslie Welton, Birmingham, Ala.—Sprinkling system for three-story 150x175-foot warehouse.

**Stage Equipment.**—Grant City Improvement Co., W. V. Hauber, president, Grant City, Mo.—Prices on stage equipment.

**Steel Bridges.**—Proposals addressed to T. W. Boyd, County Supervisor, Yorkville, S. C., received until March 20 for furnishing all material for four steel bridges; plans and specifications at office of W. W. Miller, County Engineer, Rock Hill, S. C., and at office of County Supervisor on day of letting.

**Table Manufacturers.**—Henry B. Epes, Blackstone, Va.—Correspondence with manufacturers of small tables and tabourets; view to placing contract for 10,000 tabourets, to be made of scrap lumber, pine, poplar, gum and oak, and delivered in drop shipments.

**Tank Cars.**—S. H. Baker, Box 884, Richmond, Va.—Four or five second-hand railway oil tank cars, 8000 gallons capacity, good condition. Give price and location first letter.

**Tanks.**—Portsmouth Cotton Oil Refining Corporation, Portsmouth, Va.—Addresses of manufacturers of enameled tanks.

**Textile Machinery.**—See "Lace-making Machinery."

**Traction Engine.**—Rockhill Machine Works, 401 Tenth Ave. S. E., Roanoke, Va.—Steam traction engine of compound type, enclosed crank case, splash oiling system; no governor or flywheel.

**Trip Hammers.**—Heck Machinery Co., San Antonio, Tex.—Addresses of manufacturers of belted trip hammers.

**Vacuum Cleaner.**—W. K. Barger, Lynchburg, Va.—Vacuum cleaner for 57x123-foot apartment-house.

**Water-works.**—Board of Improvement, Water-works District No. 3, D. Ward Dunlap, secretary, Clarksville, Ark., received bids until March 28 for construction of water-works and installing 380 tons of cast-iron pipe and special castings; 40 4 to 8-inch D. G. valves and 29 hydrants; tank and tower; pump and motor; plans and specifications on file at office of secretary and Winters &

Dove, engineers, Fort Smith, Ark.; copies of same obtainable from engineers by remitting \$1 and \$2.50, respectively.

**Water-works Supplies.**—Heck Machinery Co., Center St. and S. P. tracks, San Antonio, Tex.—Prices on fire hydrants, etc., for water-works plants; view to agencies.

**Water-works, Sewers and Drainage Ditch.**—Bids received by Board of Public Works, Sarasota, Fla., until March 25 for furnishing and laying 1890 feet 12-inch, 5742 feet 10-inch, 3557 feet 8-inch, 7539 feet 6-inch sewer pipe, 40 manholes and 4 flush tanks; 2480 feet 8-inch, 4650 feet 6-inch, 2155 feet 4-inch class "B" cast-iron water mains and 5700 feet 2-inch galvanized service pipe; submit bid both on A. W. W. and S. T. D. and universal joint; 5 tons specials, 21 fire hydrants, 4 8-inch, 4 6-inch, 10 4-inch and 12 2-inch gate valves; also excavating drainage ditch 3000 feet long and estimated yardage 7600 yards; bids to be itemized; certified check for 10 per cent. amount of bid; plans, profiles, etc., on file at office of secretary; W. A. Summer, chairman.

**Wire Cloth.**—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. April 1, then publicly opened, to furnish at Navy-yard, Philadelphia, Pa., a quantity of wire screen cloth. Applications for proposals should refer to schedule 5261. Blank proposals furnished upon application to navy pay office, Philadelphia, Pa., or to bureau. T. J. Cowie, Paymaster-General, U. S. N.

**Wire Handles, etc.**—El Dorado Manufacturing Co., El Dorado, Ark.—Wire handles for bushel baskets; also nails for baskets of all kinds. Give prices first letter.

**Wood-fiber Manufacture.**—J. E. Caldwell, Roanoke, Va.—Information on manufacture of fiber for wood-fiber plaster, including whether can use white-pine shavings.

**Woodworking Plants.**—See "Table Manufacturers."

**Woodworking Machinery.**—A. E. Dickson, Box 948, Mobile, Ala.—Prices on electrically-operated machinery for plant with daily capacity of 1500 gross four-inch clothespins; plant at Houston, Tex.

**Woodworking Machinery, etc.**—Heck Machinery Co., Center St. and S. P. tracks, San Antonio, Tex.—Prices on woodworking machinery; also lathes for garage use, etc.; view to agencies.

**Woodworking Machinery.**—See "Concrete-block Plant."

**Woodworking Machinery.**—See "Machine Tools."

### New Hotel for Columbus.

[Special Cor. Manufacturers Record.]

Columbus, Ga., March 4.

At the yearly banquet of the Board of Trade last week \$200,000 of stock was subscribed for a proposed hotel. Many facts were brought out in the speeches and the placards on the walls of the banquet hall which showed why Columbus people are such optimists.

Columbus is at the head of navigation of the Chattahoochee River, and immediately above Columbus is a water-power development that will ultimately furnish 70,000 horse-power. Columbus has 120 manufacturing industries. Among the most important are three hosiery mills, five iron-working plants, nine fertilizer factories, three showcase factories, three coffin factories, one wooden-tray manufactory, five woodworking establishments, two syrup factories, three cottonseed-oil mills, two marble works, four ice factories, two clothing factories, two flour and grist mills and one barrel factory.

ROY G. BOOKER.

### Improvements on Old Bay Line Steamers.

The resumption of its regular service by the steamer Florida of the Old Bay Line, Baltimore, marks the completion of extensive improvements made on that steamer. Following the policy of the company of keeping its vessels well equipped, not only with navigating and operating requirements, but with the conveniences and comforts of travel for its patrons, the Florida was withdrawn from service about six weeks ago, and is now fitted with new bronzed metal bed frames,

with brass fittings throughout; with new refrigerating plant and cold-storage facilities and other minor improvements. In supplying the metal bed stands and frames the company has eliminated all wood-work. The upper berths are of the swinging or Pullman type, so that a single occupant of the stateroom is free from the inconvenience of an overhead bunk. There are also 50 frame berths provided in three special compartments, free for passengers who do not obtain staterooms. The refrigerating system just installed is of the Jarman safety refrigerating type as patented and manufactured by the G. R. Jarman Refrigerating Co., Baltimore. In this system cold brine is forced through the pipes of the cold-storage system. Other features installed on board include hardwood floors and ample rugs secured against slipping; running water in staterooms and increased electric-light equipment. Similar improvements will be made to the steamer Virginia.

### Returning to Tobacco.

Sumter, S. C., March 5.

Editor Manufacturers Record:

The farmers in the Mayesville section of Sumter county are again trying their hand at the culture of tobacco. Some years ago the growing of tobacco in and around Mayesville was common, but just when the farmers got intensely interested the price fell. Now that the price has gone to that point where the planter sees a living profit, a good many of the staunch friends of cotton culture are experimenting with small patches of tobacco.

Barns are being built and outfitted for the curing of the plant leaves. When grading was necessary each farmer necessarily had to erect a substantial warehouse where the plant could be handled after it came out of the barn. Today, when a barn of tobacco is cured all that is necessary is to drive the wagon up to the barn door and load it ready to be sent to market.

Mayesville is on the Atlantic Coast Line Railroad, 10 miles east of Sumter. It is the logical market for the Pudding Swamp section of South Carolina. Not only will Mayesville reap the benefit of having a market where the plant will find ready sale, but the farmers of the famous Pudding Swamp section will be enabled to drive to town, sell their stock of tobacco and reach home the same day.

The buildings formerly occupied by the Pudding Swamp Tobacco Warehouse Co. will be put in condition to handle this year's crop. Men with experience are behind the movement to increase the growth of tobacco around Mayesville and to build up a market at Mayesville second to none.

L. I. STRAUSS.

### A Practical Railway Guide.

A valuable piece of publicity work for a large portion of the South has been done by the Missouri, Kansas & Texas Railway in issuing the "Official Industrial and Freight Shippers' Directory" of the system. This volume of nearly 500 pages, attractively illustrated, contains in concise form a complete list of officials of the system by departments, with title and location in Missouri, Kansas, Oklahoma, Louisiana and Texas, a synopsis of all cities and towns served by it, giving population and special sources of each, a classified index of shippers and manufacturers, an alphabetical list of stations, junction points, connecting lines, track scales with dimensions and capacities, industries having private sidings, classified list of industrial and business openings and inducements offered for them, a system map, State maps showing counties in colors and a vast amount of other reliable data pertaining to the territory of the

system especially prepared for this publication. No pains have been spared to make this book as complete and as nearly perfect as possible. Its aim is to bring about closer and more profitable relations between the business interests of different parts of the country and to promote the general growth of the particular region served by the system.

### For Dairy Instruction.

A tour embracing 53 cities and towns along the Southern Railway, Knoxville & Augusta, Knoxville & Bristol and Virginia & Southwestern railways in East Tennessee and Virginia has been arranged for the Southern Railway's "dairy instruction car," commencing March 20 and lasting through May 21. The car, which is making an extensive tour through the Southern States served by the Southern Railway to encourage farmers to take up dairying and supply the large home demand for dairy products, is fitted out as a model farm dairy, and during this tour will be accompanied by expert dairymen and cattle-breeding specialists representing the railways and the State and Federal departments of agriculture, who will conduct lectures and demonstrations showing just how a dairy can be conducted so as to yield steady and substantial profits. Practically an entire day will be devoted to each of the stops, with from two to three meetings conducted in the morning and afternoon.

### Wants to Secure Cotton Mill.

Mocksville, N. C., March 8

Editor Manufacturers Record:

J. P. Green of Mocksville, Davis county, North Carolina, offers to give 10 or 15 acres of land for a cotton-mill site, and also offers to sell 15 or 20 acres adjoining at about \$40 per acre and take same in mill stock. This land is located just south of the Southern Railway depot and bordering on the Southern tracks. Mocksville is the county-seat of Davie county, and has about 1500 inhabitants, and is located on the Southern Railway between Winston-Salem and Charlotte, N. C. The climate is mild, water good, and an abundance of cheap labor is available. It is reported that about \$50,000 of stock will be taken by the people of Mocksville. Mr. Green will be glad to hear from someone having money to invest in a cotton mill.

T. M. YOUNG.

### American Society of Engineers.

The spring meeting of the American Society of Mechanical Engineers will be held on May 20-23 in Baltimore. To foster a broader commercial spirit between America and Germany, about 200 of the most prominent mechanical engineers of the United States will go to Europe this summer to attend the fifty-fourth annual meeting of the Verein deutscher Ingenieure in Leipzig and to inspect the educational and industrial establishments of Germany.

### Machinery Dealers.

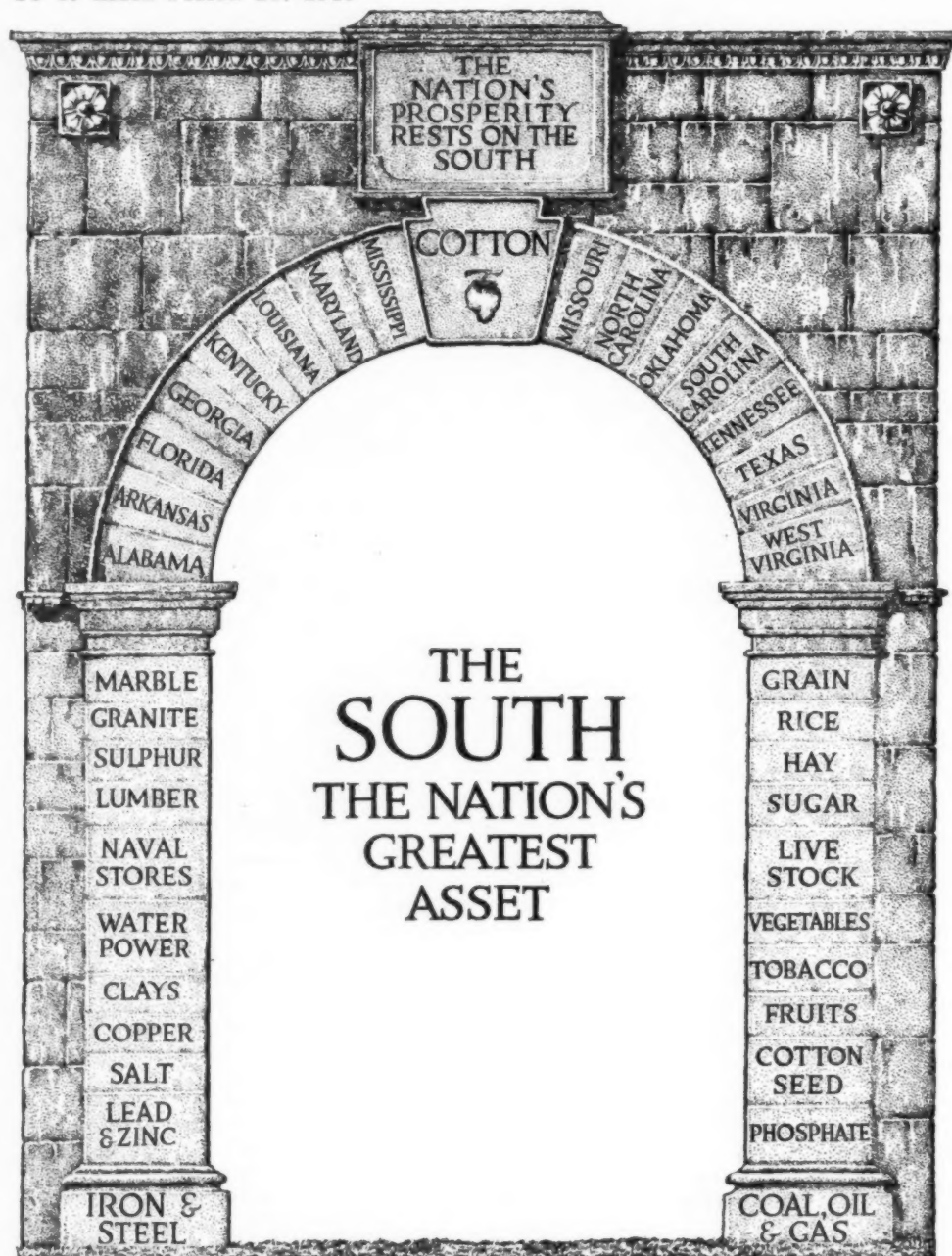
The joint convention of the American Supply and Machinery Manufacturers' Association, D. F. Mitchell, secretary and treasurer, 209 Broadway, New York; the National Supply and Machinery Dealers' Association and the Southern Supply and Machinery Dealers' Association will meet at Indianapolis, Ind., April 10-12.

### To Mine Oklahoma Tripoli.

The Wyandotte Tripoli Co., Miami, Okla., will develop 40 acres of tripoli land near Wyandotte, and plans a daily output of 50 tons, for which machinery bids will be opened on April 1. This company

Continued on Page 74.

To be issued March 27, 1913



Copyright (design), 1912, by Manufacturers Record Publishing Co.

The cover of "The South: The Nation's Greatest Asset," shown in the above miniature reproduction, will awaken world-wide interest. Study it carefully and note the foundation stones of the arch which upholds the nation's prosperity.

The very name, "The South: The Nation's Greatest Asset" is thought provoking. It will command universal attention and arouse inquiry and discussion.

Hundreds of thousands of people will ask, Is it indeed true that the greatest asset of the whole nation is the South?

Some will oppose such a claim and investigate, hoping to disprove it; some will have their curiosity aroused and will study the matter with open mind.

Everybody will pause to ponder so broad a statement. It will challenge attention throughout this and other lands.

This title itself demands the world's study and investigation. Having been created, it can never be ignored. It was adopted because we fully believed that we could prove it to the complete acceptance of any man who challenged its truthfulness. And now that the last line has been written, the last statistical presentation finished, the last argument advanced, and the presses are busy night and day reeling off the printed pages, we are more than ever satisfied that *the South is indeed the nation's greatest asset*. Moreover, the South's development will enrich and unify the whole nation. It is in no narrow sectional spirit that this question is raised.

We invite the world's study, and challenge the most thorough investigation of the overwhelming array of facts and figures to be found in "The South: The Nation's Greatest Asset."

Of course, you will need it. If you are a subscriber to the MANUFACTURERS RECORD you will receive it free. If not a subscriber, send in your order today. It ought to be in every public and private library in the country, in every office where men of intelligence think and work.

Every man who desires to see the South's prosperity advanced ought to send copies to his friends and business acquaintances, to investing clients and others whose interest will be aroused, and whose enthusiasm for the South quickened by this publication.

Order today, for we expect the whole edition to be promptly exhausted. Price in paper cover, \$1.00; in cloth, \$1.50; in leather, \$3.00.

On the following page is given a list of contents, but you can form little conception even from that of the rich storehouse provided.

MANUFACTURERS RECORD, Baltimore.



# Table of Contents

	Page.		Page.
Editorial . . . . .	3	The Appalachian National Forest as Affecting the South's Future . . . . .	61
The South: The Nation's Greatest Asset.		By John H. Finney, Secretary and Treasurer Appalachian National Forest Association.	
Summons of the South to the World.		Two Crops a Year on the Same Land . . . . .	63
The Cover Design Tells the Story.		By N. L. Willet, Augusta, Ga.	
The People Who Have Made This Issue Possible.		A Few Distinctive Southern Crops—Illustrations . . . . .	65
Uncle Sam's Views of the South.		Portland Cement Resources and Industry in the Southern States . . . . .	69
Some Southern Assets Which Combine to Make the South the Nation's Greatest Asset. . . . .	5	By Ernest F. Burchard, United States Geological Survey.	
Productive Workers as a Southern Asset . . . . .	10	Undeveloped Wealth in the Building Stones of the South . . . . .	71
Song of the Industrial South . . . . .	11	By A. T. Coons, United States Geological Survey.	
By W. C. Moore.		Mining of Bauxite (Aluminum Ore) Monopolized by the South . . . . .	75
South's Natural Resources Invite Europeans . . . . .	12	By W. C. Phalen, United States Geological Survey.	
Potentialities of Southern States Emphasized in Contrast With Northern and Western States . . . . .	13	Clay Products and Clays of the South . . . . .	77
Forecast of Southern Production in 1944 Based Upon Comparison of the South in 1912 and the Whole Country in 1880 . . . . .	15	By Jefferson Middleton, United States Geological Survey.	
Cotton: The Southern Woof in the Warp of American Agriculture, Manufacturing and Commerce . . . . .	19	Copper, Lead and Zinc in the Southern States . . . . .	79
Diversity of Southern Manufactures—Illustrations . . . . .	21	By C. E. Siebenthal, United States Geological Survey.	
Broad Lines for Future Growth of Southern Manufacturing . . . . .	25	Turning "Run-Down" Farms and Plantations into One of the South's Greatest Assets . . . . .	80
Cottonseed Potentialities . . . . .	29	By W. H. Harrison, Jr., Mansfield, La.	
By Dr. Andrew M. Soule, President, Georgia State College of Agriculture.		Importance of the South in the Production and Consumption of Fertilizers . . . . .	82
Southern Mineral Industries—Illustrations . . . . .	31	Uncle Sam's Views of the South . . . . .	83
The Mineral Assets of the South . . . . .	33	Types of Modern Office Buildings in the Rising Sky-Line of Southern Cities—Illustrations . . . . .	90
By Dr. David T. Day, United States Geological Survey.		Life Insurance in the South . . . . .	92
The Line of Future Development of the Southern Iron Industry . . . . .	35	By Wilmer L. Moore of Atlanta.	
By John Jermain Porter, Metallurgical Engineer, of Staunton, Va.		Inventory of Individual Southern States . . . . .	93
The Iron and Steel Possibilities of the South . . . . .	37	Statistical Survey of the South and the United States. . . . .	94
By Edwin C. Eckel, Mining Geologist, Washington, D. C.		Alabama . . . . .	95
Coal Area of South as Compared with Europe . . . . .	39	Arkansas . . . . .	97
By Edward W. Parker, United States Geological Survey.		Florida . . . . .	99
Timber Resources of the South . . . . .	41	Georgia . . . . .	101
By Hu Maxwell.		Kentucky . . . . .	103
The Potentialities of Southern Agriculture . . . . .	43	Louisiana . . . . .	105
By J. F. Merry, Manchester, Ia.		Maryland . . . . .	107
Applied Chemistry as An Asset of the South . . . . .	50	Missouri . . . . .	109
By James C. Lawrence, Chemical Engineer, Memphis.		Mississippi . . . . .	111
Commerce and Transportation—Illustrations . . . . .	51	North Carolina . . . . .	113
Immediate Task of Railroad Systems of the South . . . . .	53	Oklahoma . . . . .	115
By Samuel G. Wilmer.		South Carolina . . . . .	117
Latent Power in the Streams of the South . . . . .	55	Tennessee . . . . .	119
The South's Interest in Improved Waterways . . . . .	56	Texas . . . . .	121
By United States Senator Joseph E. Ransdell, President of the National Rivers and Harbors Congress.		Virginia . . . . .	123
Opportunity for the South in the Opening of the Panama Canal . . . . .	57	West Virginia . . . . .	125
By John O. Collins, Ancon, Canal Zone.		Miscellaneous.	
Industrial Energy in Waters of the South—Illustrations . . . . .	59	To Become the World's Garden . . . . .	9
Horses, Cattle and Poultry—Illustrations . . . . .	60	The World's Great Asset: Cotton . . . . .	34
		Pecan-Growing in the South . . . . .	36
		Why the West and North Had to Be Developed Before the South . . . . .	49
		Ten Southern Crops in 1909 . . . . .	50
		The Center of the World and the Focus of the World's Commerce . . . . .	64
		South's Mineral Output by Decades . . . . .	81
		National Banking in the South . . . . .	92
		Southern Lumber Production by Decades . . . . .	92
		Descriptive Advertising Section . . . . .	127

# Unfolding the Panorama of the South's Activities

## THROUGH

### "THE SOUTH: THE NATION'S GREATEST ASSET"



MOVING panorama, thrilling with interest, is unfolded in the descriptive and displayed advertising pages of "The South: The Nation's Greatest Asset," to be issued March 27, wherein will be found interest-compelling articles dealing with the material activities of the South

In the editorial and news pages the editors and special contributors have attempted to present a bird's-eye view of the South as a whole, of its vast and varied resources, of its progress in the past, and to forecast something of its future.

In the advertising pages specific facts and concrete illustrations are presented of individual towns and cities and of industrial and railroad operations, emphasizing in this way the reality of the things that have been told broadly in the editorial and news pages.

Never before, we believe, in any publication issued in this country has there appeared such a vast amount of information specifically emphasizing by individual activities the wide range of Southern development. In these pages there will be found a variety of information, much of it as interesting and valuable to the student of Southern conditions as the array of facts and figures presented by editorial writers, and experts of the highest standing, who have given such a picture of the South as was never before painted.

Broad generalizations about the South and its potentialities here find overwhelming proof in stories of great interest dealing with specific activities.

In these advertising pages, descriptive and displayed, are facts regarding many of the most advantageously located and most prosperous towns and cities of the South; here are facts which tell of enormous expenditures in the development of water-powers, of great industrial enterprises whose success is indicative of the opportunities presented in the South; facts about great reclamation undertakings showing how the 50,000,000 acres of wet lands in the South are to be redeemed and made available for man's use, adding billions of dollars to the wealth of this section and of the nation; facts about novel features in connection with inter-urban railway operations; facts about great railroad enterprises and their meaning to the nation, and facts about other operations typical of the possibilities in this section.

It is, however, impossible to catalogue the things that can be found in the advertising pages of that publication of vital interest to every man. These pages should be studied with care. They contain a wealth of information vitally important to everyone in any way connected with the advancement of the South or who seeks information about this section.

"The South: The Nation's Greatest Asset," through the years to come will add hundreds of millions of dollars to the wealth of the South and turn the thought of hundreds of thousands of people to this section. Every advertisement in it, from the small \$10 card to the 10-page story, is a factor in making its publication possible and to that extent in making known to the world the resources and the advantages of the South.

If you desire information about the South as a place of residence or for business, write to any of the concerns whose names are given below, and in doing so mention the Manufacturers Record.

These advertisers are doing more than merely seeking to present their own specific announcement, whether that be of a bank or a town, for on a broader view than exclusively for their own individual prosperity they are united in a great campaign for hastening the coming of the day when abounding prosperity shall prevail throughout every part of the South. It is, however, meet that every one of these advertisers should receive from the people of the South, and others interested in the South, due recognition for their co-operative work in this broad campaign for Southern upbuilding. Through these pages they rightly express the living, breathing reality of Southern energy and Southern activity, and the Manufacturers Record desires in this way to pay its tribute to their work and their worth. Here is a list of the railroads, the manufacturers, the banks and bankers, the towns and other advertisers who have made possible the publication of "The South: the Nation's Greatest Asset."

#### BANKS, BANKERS AND TRUST COMPANIES

Alamo Trust Co., San Antonio, Tex.  
American Bank & Trust Co., San Antonio, Tex.  
American National Bank, Atlanta, Ga.  
American Finance & Bond Co., Birmingham, Ala.  
American Bank & Trust Co., Vicksburg, Miss.  
American Nat'l Bank, Fort Worth, Tex.  
American Exchange National Bank, Dallas, Tex.  
American National Bank, Tampa, Fla.  
Assets Realization Co., Chicago, Ill.  
Atlantic Trust & Banking Co., Wilmington, N. C.  
Baker, Watts & Co., Baltimore, Md.  
Bank of Camden, Camden, S. C.  
Bank of Pine Bluff, Pine Bluff, Ark.  
Bank of Sumter, Sumter, S. C.  
Bank of Commerce, Gulfport, Miss.  
Bank of Bishopville, Bishopville, S. C.  
Bank of Spartanburg, Spartanburg, S. C.  
Bank of Horry, Conway, S. C.  
Bank of Ellenboro, Ellenboro, N. C.  
Bank of Ragland, Ragland, Ala.  
Bankers Trust Co., Houston, Tex.  
Birmingham Trust & Savings Co., Birmingham, Ala.  
Bowman & Co., D. A., St. Louis, Mo.  
Calcasieu Nat'l Bank, Lake Charles, La.  
Citizens Bank & Trust Co., Ashland, Ky.  
Citizens Nat'l Bank, Cumberland, Md.  
City Bank & Trust Co., Mobile, Ala.  
City Nat'l Bank, Johnson City, Tenn.  
City National Bank, Selma, Ala.  
City National Bank, Sumter, S. C.

City Nat'l Bank, Tuscaloosa, Ala.  
Commercial Nat'l Bk., High Point, N. C.  
Commercial Nat'l Bank, Raleigh, N. C.  
Commercial Bank, Bogalusa, La.  
Continental Trust Co., Baltimore, Md.  
Cooke, Holtz & Co., Chicago, Ill.  
Cutter, May & Co., Chicago, Ill.  
Dickey, Jno. W., Augusta, Ga.  
Dublin & Laurens Bank, Dublin, Ga.  
East Tennessee National Bank, Knoxville, Tenn.  
Farmers & Merchants Bank, Marion, S. C.  
Farmers Banking & Trust Co., Tarboro, N. C.  
Farmers & Merchants National Bank, Lumberton, N. C.  
Farmers & Merchants Bank, Monroe, N. C.  
Fidelity & Columbia Trust Co., Louisville, Ky.  
First Mortgage Trust Co., San Antonio, Tex.  
First National Bank, Houston, Tex.  
First Nat'l Bank, Parkersburg, W. Va.  
First National Bank, Mobile, Ala.  
First Nat'l Bank, Huntington, W. Va.  
First National Bank, Waycross, Ga.  
First National Bank, Quitman, Ga.  
First National Bank, Camden, S. C.  
First Nat'l Bank, Richmond, Va.  
First Nat'l Bank, Durham, N. C.  
First National Bank, Birmingham, Ala.  
First Nat'l Bank, Fernandina, Fla.  
First National Bank, Jonesboro, Ark.  
First National Bank, Tuscaloosa, Ala.  
First National Bank, Clarksville, Tenn.  
First National Bank, Benjamin, Tex.  
First Nat'l Bank, Havre de Grace, Md.  
First National Bank, Fort Worth, Tex.  
First National Bank, Decatur, Ala.  
First National Bank, Waco, Tex.

First National Bank, Louisburg, N. C.  
First National Bank, Waynesboro, Va.  
First National Bank, Cumberland, Md.  
First National Bank, Gulfport, Miss.  
First National Bank, Key West, Fla.  
First National Bank, Corinth, Miss.  
First Nat'l Bank, St. Augustine, Fla.  
First National Bank, Mullins, S. C.  
Fourth & First National Bank, Nashville, Tenn.  
Fourth National Bank, Atlanta, Ga.  
Ft. Worth Nat'l Bank, Ft. Worth, Tex.  
Fort Smith Bank & Trust Co., Fort Smith, Ark.  
Georgia Railroad Bank, Augusta, Ga.  
Germania Sav. Bank, Charleston, S. C.  
Greensboro Nat'l Bk., Greensboro, N. C.  
Greenville Banking & Trust Co., Greenville, N. C.  
Hambleton & Co., Baltimore, Md.  
Hancock Bank, Hancock, Md.  
Heard Nat'l Bank, Jacksonville, Fla.  
Hibernia Bank & Trust Co., New Orleans, La.  
Huntington Banking & Trust Co., Huntington, W. Va.  
Huntington National Bank, Huntington, W. Va.  
Interstate Trust & Banking Co., New Orleans, La.  
Kanawha Banking & Trust Co., Charleston, W. Va.  
Lombard & Co., Atlanta, Ga.  
Lowry National Bank, Atlanta, Ga.  
Maryland Trust Co., Baltimore, Md.  
Marx & Co., Otto, Birmingham, Ala.  
Merchants-Mechanics National Bank, Baltimore, Md.  
Merchants Bank, Mobile, Ala.  
Mercantile Trust Co., Jackson, Tenn.  
Merchants Nat'l Bank, Ft. Smith, Ark.  
Merchants Nat'l Bank, Savannah, Ga.

Merchants & Planters Bk., Bunkie, La.  
Merchants & Farmers Bk., Eutaw, Ala.  
Merchants Bank & Trust Co., Jackson, Miss.  
Mercantile Trust Co., St. Louis, Mo.  
National Exchange Bank, Balto., Md.  
Nat'l Loan & Ex. Bank, Columbia, S. C.  
National Bank of Fairmont, Fairmont, W. Va.  
Nat'l Exchange Bank, Weston, W. Va.  
Nat'l Bk. of New Bern, New Bern, N. C.  
Nat'l Bank of Commerce, Balto., Md.  
Nat'l Bank of Virginia, Richmond, Va.  
Nelson, Cook & Co., Baltimore, Md.  
Norwood Nat'l Bank, Greenville, S. C.  
New First National Bank, Columbus, O.  
Palmetto Nat'l Bank, Columbia, S. C.  
Peoples Bank, Anderson, S. C.  
Planters National Bank, Richmond, Va.  
Richmond Trust & Savings Co., Richmond, Va.  
Safe Deposit & Trust Co., Baltimore, Md.  
Savannah Bank & Trust Co., Savannah, Ga.  
Savannah Trust Co., Savannah, Ga.  
Savings Bank & Trust Co., Elizabeth City, N. C.  
Sessions Loan & Trust Co., Marietta, Ga.  
Siler City Loan & Trust Co., Siler City, N. C.  
Southern Nat'l Bank, Wilmington, N. C.  
Standard Trust Co., San Antonio, Tex.  
State National Bank, Texarkana, Ark.  
State Bank of Gulfport, Gulfport, Miss.  
Texarkana Trust Co., Texarkana, Ark.  
Third National Bank, Columbus, Ga.  
Third National Bank, Atlanta, Ga.  
Travelers Bank & Trust Co., Atlanta, Ga.  
U. S. Bond & Mortgage Co., Dallas, Tex.  
Virginia Nat'l Bank, Petersburg, Va.



Virginia Trust Co., Richmond, Va.  
Waycross Savings & Trust Co., Waycross, Ga.  
Westminster Savings Bank, Westminster, Md.  
Williams & Sons, Jno. L., Richmond, Va.

## RAILROADS

Ala., Tenn. & Northern, Mobile, Ala.  
Atlanta, Birm. & Atlantic, Atlanta, Ga.  
Carolina, Clinchfield & Ohio, New York City.  
Carolina & North Western, Chester, S. C.  
Florida East Coast, St. Augustine, Fla.  
Kansas City Southern, Kansas City, Mo.  
Louisville & Nashville, Louisville, Ky.  
Norfolk Southern, Norfolk, Va.  
Norfolk & Western, Roanoke, Va.  
Pennsylvania Railroad, Philadelphia, Pa.  
Seaboard Air Line, Norfolk, Va.  
South Carolina Light, Power & Ryws. Co., Spartanburg, S. C.  
Southern Railway, Washington, D. C.  
St. Louis Southwestern Ry., St. Louis, Mo.  
Tombigbee Valley & Mobile Terminal Rwy. Co., Mobile, Ala.

## TOWNS AND CITIES

Anderson, S. C., Chamber of Commerce.  
Asheville, N. C., Board of Trade.  
Athens, Ga., Chamber of Commerce.  
Augusta, Ga., Chamber of Commerce.  
Big Stone Gap, Va., Board of Trade.  
Birmingham, Ala., Chamber of Commerce.  
Bluefield, W. Va., Appalachian Power Co.  
Bristol, Va.-Tenn., Board of Trade.  
Chester, S. C., Commercial Club.  
Coffeeville, Miss., Board of Trade.  
Charlotte, N. C., Greater Charlotte Club.  
Cheraw, S. C., Board of Trade.  
Decatur, Ala., Decatur Development Co. & Chamber of Commerce.  
Denison, Tex., Chamber of Commerce.  
Florida, Fellsmere Farms Co., New York City.  
Fort Worth, Tex., Chamber of Commerce.  
Freeport, Tex., S. M. Swenson & Sons.  
Georgetown, S. C., Chamber of Commerce.  
Gonzales, Tex., Business Men's Club.  
Grand Saline, Tex., Chamber of Commerce.  
Greensboro, N. C., Chamber of Commerce.  
Greenville, S. C., Chamber of Commerce.  
Hendersonville, N. C., Greater Hendersonville Club.  
Hopkinsville, Ky., Hopkinsville Business Men's Association.  
Houston, Tex., Chamber of Commerce.  
Huntsville, Ala., Chamber of Commerce.  
Jacksonville, Fla., Board of Trade.  
Johnson City, Tenn., Commercial Club.  
Kinston, N. C., Chamber of Commerce.  
Knoxville, Tenn., National Conservation Exposition.  
Little Rock, Ark., Arkansas Colonizing Co.  
Lincolnton, N. C., Lincolnton Development Club.  
Live Oak, Fla., Chamber of Commerce.  
Macon, Ga., Mayor & City Council.  
Marion, S. C., Chamber of Commerce.  
Mullins, S. C., Chamber of Commerce.  
Muscooke County, Frank U. Garrard, Chairman Co. Com., Columbus, Ga.  
Nashville, Tenn., Dept. of Agriculture & Immigration.  
Norfolk, Va., Industrial Commission.  
Orange, Tex., Commercial Club.  
Oxford, N. C., Granville Commercial Club.  
Raleigh, N. C., Chamber of Commerce.  
Salisbury, N. C., Industrial Club.  
San Antonio, Tex., Chamber of Commerce.  
Shreveport, La., Chamber of Commerce.  
Spartanburg, S. C., Chamber of Commerce.  
Tampa, Fla., Board of Trade.  
Tarboro, N. C., Board of Trade.  
Tuscaloosa, Ala., Board of Trade.  
Washington, N. C., Chamber of Commerce.  
Waycross, Ga., H. D. Reed, Mayor.  
Wilmington, N. C., Southern National Bank; Atlantic Trust & Banking Co.  
Yazoo City, Miss., Yazoo Commercial Club.

## MANUFACTURERS AND BUSINESS HOUSES

Abbott & Co., F. C., Charlotte, N. C.  
Adams Co., W. S., Louisville, Ky.  
Agee, G. W., Memphis, Tenn.  
Ahern, J., Jacksonville, Fla.  
Alabama Fuel & Iron Co., Birmingham, Ala.  
Alabama Power Co., Birmingham, Ala.  
Alabama School of Trades & Industries, Ragland, Ala.  
Alamo Home Builders, San Antonio, Tex.  
Atlantic Coast Realty Co., Greenville, N. C.  
Atlantic Gulf & Pacific Co., New York City.  
Atlantic Paint & Varnish Co., Wilmington, N. C.  
Atlanta Steel Co., Atlanta, Ga.  
Atlantic Transport Co., Baltimore, Md.  
American Can Co., New York City.  
American Casting Co., Birmingham, Ala.  
American Cast Iron Pipe Co., Birmingham, Ala.  
American Cities Co., New Orleans, La.  
Arminius Chemical Co., New York City.  
Armour Fertilizer Co., Chicago, Ill.  
American Machine Co., Louisville, Ky.  
American Steel & Wire Co., Chicago, Ill.  
American Supply Co., Providence, R. I.  
Anderson Mfg. Co., Inc., Tullahoma, Tenn.  
Austin Bros., Atlanta, Ga.  
Bailey-Lebby Co., Charleston, S. C.  
Bailey & Ferrill, Meridian, Miss.  
Baltimore Oakum Co., Baltimore, Md.  
Barney & Hines, Memphis, Tenn.  
Bibb Sewer Pipe Co., Macon, Ga.  
Beall, Fred A., Dallas, Tex.  
Birmingham Metal Products Co., Birmingham, Ala.  
Birmingham Slag Co., Birmingham, Ala.  
Blackmer & Post Pipe Co., St. Louis, Mo.  
Boomer & Boschert Press Co., Syracuse, N. Y.  
Boston Belting Co., Boston, Mass.  
Boston Incandescent Lamp Co., Danvers, Mass.  
Bowman & Co., D. Arthur, St. Louis, Mo.  
Bradford's Detective Service, Washington, D. C.  
Brett Engineering & Contracting Co., Wilson, N. C.  
Bretz Co., J. S., New York City.  
Broderick & Bascom Rope Co., St. Louis, Mo.  
Brown, Eugene C., Washington, D. C.  
Brown Realty Co., Lake City, Fla.  
Bucyrus Co., South Milwaukee, Wis.  
Buckeye Iron & Brass Works, Dayton, O.  
Burriss Engineering Co., Atlanta, Ga.  
Call-Watt Co., Richmond, Va.  
Cameron & Barkley Co., Charleston, S. C.  
Camp Mfg. Co., Franklin, Va.  
Cardwell Machine Co., Richmond, Va.  
Carolina Bagging Co., Henderson, N. C.  
Central Georgia Power Co., Macon, Ga.  
Ceresit Waterproofing Co., Chicago, Ill.  
Chandlee & Chandlee, Washington, D. C.  
Charleston, S. C., Mining & Mfg. Co., Charleston, S. C.  
Cherokee Coal Co., Knoxville, Tenn.  
Chesapeake Iron Wks., Baltimore, Md.  
Cliff Williams Machine Co., Meridian, Miss.  
Clinchfield Portland Cement Corp., Kingsport, Tenn.  
Cochran Co., R. O., Atlanta, Ga.  
Columbus Power Co., Columbus, Ga.  
Conant & Co., J. E., Lowell, Mass.  
Consolidation Coal Co., Baltimore, Md.  
Consolidated Naval Stores Co., Jacksonville, Fla.  
Consolidated Tramway Co., Roanoke, Va.  
Converse College, Spartanburg, S. C.  
Cory, Harrison & Co., San Antonio, Tex.  
Craven Chemical Co., Newbern, N. C.  
Creager Co., A. Y., Sherman, Tex.  
Danzon Metal Works, Hagerstown, Md.  
Dart Mfg. Co., E. M., Providence, R. I.  
Davis Foundry & Machine Works, Rome, Ga.  
Detroit Steel Products Co., Detroit, Mich.  
Dow Wire & Iron Works, Louisville, Ky.  
Dixie Culvert & Metal Co., Atlanta, Ga.  
Dixie Electro Magnet Co., Memphis, Tenn.  
Draper Co., Hopedale, Mass.  
Dreyer Supply Co., Fred C., Cumberland, Md.  
Dunbar Land Co., Charleston, W. Va.  
Eastern Texas Traction Co., Dallas, Tex.

Edwards & Patterson, Milledgeville, Ga.  
Electric Wheel Co., Quincy, Ill.  
Emory & Eisenbrey, Philadelphia, Pa.  
Emerson Hotel Co., Baltimore, Md.  
Evans Co., Victor J., Washington, D. C.  
Falls City Construction Co., Louisville, Ky.  
Fannin & McCullough Sheet Mill Co., Inc., Ashland, Ky.  
Fiske-Carter Construction Co., Greenville, S. C.  
Fleet-McGinley Co., Baltimore, Md.  
Fohs & Gardner, Lexington, Ky.  
Foster Bros. Mfg. Co., Baltimore, Md.  
Foster-Creighton-Gould Co., Nashville, Tenn.  
Froehling & Robertson, Richmond, Va.  
Franklin Plant Farm, Norfolk, Va.  
Ft. Wayne Electric Works, Ft. Wayne, Ind.  
Gandy Belting Co., Baltimore, Md.  
Gardner & Howe, Memphis, Tenn.  
General Asbestos & Rubber Co., Charleston, S. C.  
Georgia and Florida Land & Investment Co., Tifton, Ga.  
Georgia Fruit, Farm and Pecan Co., Waycross, Ga.  
Georgia Life Insurance Co., Macon, Ga.  
Gibbes Machinery Co., Columbia, S. C.  
Glamorgan Pipe & Foundry Co., Lynchburg, Va.  
Goldens Foundry & Machine Co., Columbus, Ga.  
Goulds Mfg. Co., Seneca Falls, N. Y.  
Grogg & Dudley, Parkersburg, W. Va.  
Grove Park, E. W., Asheville, N. C.  
Hammond-Ryrd Iron Co., Birmingham, Ala.  
Hardie-Tynes Mfg. Co., Birmingham, Ala.  
Hardaway Contracting Co., Columbus, Ga.  
Harper Realty Co., C. A., Tampa, Fla.  
Harris Granite Quarries Co., Salisbury, N. C.  
Hartfelder, E. T., Savannah, Ga.  
Hartley Boiler Works, Montgomery, Ala.  
Hayward Co., New York City.  
Hoggard & Co., H. C., Norfolk, Va.  
Holtzendorff, P. W., Memphis, Tenn.  
Home Insurance Co., New York.  
Hoopes Realty Co., Rockport, Tex.  
Indestructible Sign Co., Columbus, O.  
International Cable Railway Co., Baltimore, Md.  
International Farm Agency, Lynchburg, Va.  
International Motor Co., New York City.  
Jefferson Powder Co., Birmingham, Ala.  
Jemison Real Estate & Insurance Co., Birmingham, Ala.  
Johnson, Inc., B. F., Washington, D. C.  
Johnston Paint Co., R. F., Cincinnati, O.  
Jones, E. M., Chattanooga, Tenn.  
Jones, Fred A., Dallas, Tex.  
Kaul Lumber Co., Birmingham, Ala.  
Kelly-Springfield Road Roller Co., Springfield, O.  
Kenova-Huntington Land Co., Huntington, W. Va.  
Kentucky Culvert Mfg. Co., Buechel, Ky.  
Kerr, John A., San Antonio, Tex.  
Kingsport Brick Corp., Johnson City, Tenn.  
Kirby Lumber Co., Houston, Tex.  
Langren Hotel, Asheville, N. C.  
Laurens Realty & Investment Co., Dublin, Ga.  
Lee Electric Co., Baltimore, Md.  
Lagarde Lime & Stone Co., Anniston, Ala.  
Leschen & Sons Rope Co., A., St. Louis, Mo.  
Life Insurance Co. of Va., Richmond, Va.  
Link-Belt Co., Philadelphia, Pa.  
Lockett & Co., A. M., New Orleans, La.  
Lund & Hill, Little Rock, Ark.  
Macon Stone Supply Co., Macon, Ga.  
Mallison Braided Cord Co., Athens, Ga.  
Massee & Felton Lbr. Co., Macon, Ga.  
Mathieson Alkali Works, Saltville, Va.  
May & Turner Co., Atlanta, Ga.  
McCrary Co., J. B., Atlanta, Ga.  
McDonald Co., F. N., Baltimore, Md.  
McGrit, W. B., Darlington, S. C.  
McMillan Bros., Savannah, Ga.  
McMillan Realty Co., Jacksonville, Fla.  
Mecklenburg Iron Works, Charlotte, N. C.  
Mercer, G. A., Savannah, Ga.  
Meyers Mfg. Co., Fred J., Hamilton, O.  
Mitchell, W. B., Chattanooga, Tenn.  
Moffatt Mch. Mfg. Co., Charlotte, N. C.  
Moore Dry Kiln Co., L., Jacksonville, Fla.  
National Adjustable Window Corp., Richmond, Va.

National Roofing Tile Co., Lima, O.  
National Show Case Co., Columbus, Ga.  
New Departure Mfg. Co., Bristol, Conn.  
Nicholson File Co., Providence, R. I.  
Nickerson Mfg. Co., Knoxville, Tenn.  
Norfolk Building Supplies Co., Norfolk, Va.  
North Birmingham Fire Brick & Proofing Co., Birmingham, Ala.  
North State Life Insurance Co., Kinston, N. C.  
Northwestern Expanded Metal Co., Chicago, Ill.  
Northcross Mantel & Grate Co., W. J., Memphis, Tenn.  
O'Brian, W. C., Memphis, Tenn.  
Oliver Mfg. Co., W. J., Knoxville, Tenn.  
Otis Elevator Co., New York City.  
Page & Taylor, Norfolk, Va.  
Parker-Brooks Constn. Co., Macon, Ga.  
Parker Surry, Pine Town, N. C.  
Peck-Hammond Co., Cincinnati, O.  
Peebles Paving Brick Co., Portsmouth, O.  
Pickering Governor Co., Portland, Conn.  
Piedmont Electric Co., Asheville, N. C.  
Plymouth Cordage Co., North Plymouth, Mass.  
Prouff, F. G., Memphis, Tenn.  
Rand Power Co., Knoxville, Tenn.  
Randle, S. T., Paducah, Ky.  
Raley-Hamby Co., Jacksonville, Fla.  
Requarth Co., C. W., Charlotte, N. C.  
Richey & Co., John, Houston, Tex.  
Robbins & Myers, Springfield, O.  
Roberts & Son, Birmingham, Ala.  
Robinson & Son Co., Wm. C., Baltimore, Md.  
Rocky Face Silica Sand Co., Tunnel Hill, Ga.  
Roper Lumber Co., Jno. A., Norfolk, Va.  
Rucker, B. Parks, Charlotte, N. C.  
Ruse & Co., Baltimore, Md.  
Schacht Motor Car Co., Cincinnati, O.  
Schofield's Sons Co., J. S., Macon, Ga.  
Shearer, C. E., Memphis, Tenn.  
Shearer David R., Knoxville, Tenn.  
Sherrick Land Co., Indianapolis, Ind.  
Sibley-Menge Brick & Coal Co., Birmingham, Ala.  
Sirrinc, J. E., Greenville, S. C.  
Smith, C. Manly, Dublin, Ga.  
Smith, S. Guy, Jonesboro, Ark.  
Solomon-Norcross Co., Atlanta, Ga.  
South Atlantic Blowpipe Co., Jacksonville, Fla.  
Southern Asphalt & Constn. Co., Birmingham, Ala.  
Southern Farm Agency, Lynchburg, Va.  
Southern Land Devlp. Co., Laurens, S. C.  
Southeastern Life Ins. Co., Greenville, S. C.  
Southern Pipe Covering Co., Richmond, Va.  
Southern States Development Co., New York City.  
Southern States Refining Co., Jacksonville, Fla.  
Southern-Wesco Supply Co., Birmingham, Ala.  
Standard Brick Co., Macon, Ga.  
Standard Portland Cement Co., Birmingham, Ala.  
Stevens Sons Co., Henry, Macon, Ga.  
Stone Printing & Mfg. Co., Roanoke, Va.  
Stone & Webster, Boston, Mass.  
Tait-Nordmeyer Engineering Co., St. Louis, Mo.  
Tampa Land & Development Co., Tampa, Fla.  
Taylor Truck Co., Newbern, N. C.  
Thomas Grate Bar Co., Birmingham, Ala.  
Thompson Co., Chas. M., Baltimore, Md.  
Tennessee Copper Co., New York City.  
Tennessee Overall Co., Tullahoma, Tenn.  
Terry Steam Turbine Co., Hartford, Conn.  
Union Sulphur Co., New York City.  
Unit Construction Co., St. Louis, Mo.  
Universal Ice Co., Atlanta, Ga.  
Valk & Murdoch Iron Works, Charleston, S. C.  
Van Sant, Frank, Washington, D. C.  
Va. Fire & Marine Insurance Co., Richmond, Va.  
Virginia Bridge & Iron Co., Roanoke, Va.  
Va. Metal & Culvert Co., Norfolk, Va.  
Washburn, A. H., Charlotte, N. C.  
Wauchula Mfg. & Timber Co., Tampa, Fla.  
White & Co., J. G., New York City.  
Wilbur, Edward, Boston, Mass.  
Williams, S. C., Johnson City, Tenn.  
Willard-Boggs & Co., Spartanburg, S. C.  
Withers, B. F., Charlotte, N. C.  
Wood Lumber Co., R. E., Baltimore, Md.  
Woodward-Baldwin Co., Baltimore, Md.  
Woodward, Wight & Co., Ltd., New Orleans, La.  
Wyatt, J. L., Salisbury, N. C.  
Yolande Coal & Coke Co., Birmingham, Ala.

Continued from Page 69.  
was recently reported incorporated with \$100,000 capital stock.

### Deep Water for Freeport.

Provision in the rivers and harbors bill for a new survey and estimate to secure 25 feet of water in the Brazos River from its mouth to Freeport, Tex., which passed the Sixty-second Congress, will, if carried out, increase deep water at Freeport from 18 feet to 25 feet.

Birmingham District, Mineral Land Reference, First Edition, February, 1913. Compiled and published by Alabama Mineral Map Co., Birmingham, Ala.

Information of value to mining interests and the general industrial world about the mineral lands in the Birmingham district of Alabama is presented in the first edition of the Birmingham District Mineral Land Reference, which has just appeared from the press in handsome dress. It contains more than 530 pages, and deals in the most minute way with lands in Marion, Winston, Cullman, Blount, Etowah, Fayette, Walker, Jefferson, St. Clair, Tuscaloosa, Bibb and Shelby counties. Each page of the book represents thirty-six 40-acre tracts, with figures and statistics giving information about the minerals and developments and a directory of addresses of landowners of each county follows the detailed data for that county. In addition to these records of ownership, maps 30 inches square on a scale of 1½ inches per mile and a general map 40 inches by 60 inches of the Birmingham district are supplied by the company publishing the volume, to the subscribers to its service. Each map shows in colors and by description the ownership of mineral and fee-simple lands, principal streams, railroads, mining camps, etc. H. F. Adams is the president and C. C. Huckabee is secretary and treasurer of the Alabama Mineral Map Co.

## FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

### Review of the Baltimore Market.

Office MANUFACTURERS RECORD,

Baltimore, Md., March 12.

The Baltimore stock market continued quiet during the last week, and trading showed sales as follows: United Railways common, 24 to 23½; do. incomes, 63½ to 62½; do. funding 5s, 87 to 87½; do. notes, 101 to 100; do. 4s, 84½ to 83½; Consolidated Gas Electric Light & Power common, 111 to 110; do. 4½s, 89½ to 89; Consolidated Gas 4½s, 94½ to 94; Seaboard Air Line common, 18½ to 19½; Mt. Vernon-Woodberry Cotton Duck 5s, 75½ to 75; G. B. S. Brewing 4s, 46½.

Bank stock sold thus: Merchants-Mechanics, 33½ to 34; Western, 41½; Exchange, 162½; Old Town, 14; Bank of Baltimore, 180.

Fidelity & Deposit sold from 177½ to 178¾, reacting to 172; do. rights, 8½ to 10½; Maryland Casualty, 105 to 107½, reacting to 105; United States Fidelity, 190.

Other securities were traded in as follows: Houston Oil common, trust certificates, 20 to 18½; do. preferred, 63 to 62½; do. dividend certificates, 81; Consolidation Coal, 101 to 100; do. refunding 4½s, 90½ to 90; do. notes, 100½ to 99½; Atlantic Coast Line 4s, certificates, 85½; Anacostia & Potomac 5s, 100 to 99½; Baltimore Electric 5s, stamped, 99½ to 99; do. preferred stock, 45 to 44½; Charleston & Western Carolina 5s, 105¾; New Orleans Great Northern 5s, 68½ to 68; Norfolk & Portsmouth Traction 5s, 90½; Baltimore Brick 5s, 83; Norfolk Railway & Light 5s, 99¾; Pennsylvania Water & Power common, 65½; Southern Bell Telephone 5s, 100½; At-

lantic Coast Line consolidated 4s, 92½; Metropolitan (Washington) 5s, 105; Maryland & Pennsylvania incomes, 68½; Georgia & Alabama Consolidated 5s, 104½; New Orleans, Mobile & Chicago 5s, 84½; Baltimore City 4s, 1957, 97 to 96½; Petersburg 4s, 105½ to 105½; Jacksonville Gas 5s, 96; Washington, Baltimore & Annapolis 5s, 87½; Baltimore City 5s, 1916, 102¾; Northern Central Railway stock, 122; Baltimore, Sparrows Point & Chesapeake 4½s, 95½; Western North Carolina 6s, 101½; Jacksonville City 5s, 1924, 104½; Fairmont & Clarksburg Traction 5s, 100½; Georgia, Carolina & Northern 5s, 104 to 103½; Macon, Dublin & Savannah 5s, 99½; Virginia Railway & Power 5s, 94; Atlantic Coast Line convertible debenture 4s, 97; City & Suburban (Washington) 5s, 103; Coal & Coke Railway 5s, 95; Atlantic Coast Line Railroad stock, 124; Baltimore City 4s, 1961, 96¾; Georgia & Alabama Consolidated 5s, 104; Maryland Electric 5s, 97 to 97½; Milwaukee Refunding 4½s, 93½; Pennsylvania Railroad stock, 119½; Seaboard & Roanoke 5s, 104½; Jamison Coal & Coke, George's Creek 5s, 75½; Chicago Railways 5s, 99; Norfolk Street Railway 5s, 105½.

### SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended March 12, 1913.

Railroad Stocks.	Par.	Bid.	Asked.
At. Coast of Conn.	100	247	251
Georgia Sou. & Fla. 2d Pfd.	100	89½	81
Macon Railway & Light Pfd.	100	105	105
Maryland & Pennsylvania	100	42	42
Seaboard Com.	100	19	19½
Seaboard Pfd.	100	43½	44
United Railways & Elec. Co.	50	23	24
Virginia Ry. & P. Com.	100	55½	56
Western Maryland	100	42	44

Bank Stocks.	Par.	Bid.	Asked.
Bank of Baltimore	100	178	181
Bank of Commerce	100	15	32
Exchange	100	160	164
Farmers & Merchants	100	49	49½
Howard	100	14½	15
Maryland	20	22½	23
Merchants-Mechanics	100	33½	34
National City	100	111	115
Old Town	100	15	15
Union	100	143½	144
Western	20	42	42

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
Baltimore Trust	100	162	162
Colonial Trust	50	29	29½
Continental Trust	100	216	216
Fidelity & Deposit	50	168½	172
Fidelity Trust	100	267½	272
Maryland Trust	100	119½	119½
Maryland Trust Pfd.	100	117	119
Maryland Casualty	25	103	103
Merc. Trust & Dep.	50	158	161
Munsey Trust	100	104	106
U. S. Fidelity & Guaranty	100	198	198

Miscellaneous Stocks.	Par.	Bid.	Asked.
Baltimore Electric Pfd.	40	44½	44½
Con. Gas, Elec. Lt. & P. Com.	100	110½	110½
Con. Gas, Elec. Lt. & P. Pfd.	100	119	119
Consolidation Coal	100	101	101
Railroad Bonds.	Par.	Bid.	Asked.
Alabama Midland 5s.	106	107½	107½
Atlantic Coast 1st 4s.	92	92½	92½
At. Coast Conv. Deben 4s.	96	97½	97½
At. Coast Comm. 4s, Cfs.	89½	90½	90½
At. Coast Comm. 4s, Cfs.	89½	90½	90½
At. Coast S. C. 4s.	94	94	94
Baltimore & Ohio Con. 4½s.	94½	94½	94½
Carolina Central 4s.	91¾	92½	92½
Charleston & West. Car. 5s.	103½	105	105
Coal & Coke Railway 5s.	94½	95½	95½
Coal & Iron Railway 5s.	99½	100	100
Col. & Green, 1st 6s.	103	103	103
Florida West Shore 5s.	101½	101½	101½
Georgia & Alabama 5s.	99	99	99
Georgia & Florida 5s.	103½	104	104
Georgia, Car. & North. 1st 5s.	103½	104	104
Georgia Pacific 1st 6s.	109½	109½	109½
Georgia South. & Fla. 1st 5s.	104½	104½	104½
Macon, Dublin & Savannah 5s.	98	100	100
New Orleans Gt. Nor. 5s.	67	68	68
New Orleans, M. & C. 5s.	84	85	85
Petersburg Class A 5s.	105½	106	106
Potomac Valley 1st 5s.	107½	107½	107½
Raleigh & Augusta 1st 6s.	110	110½	110½
Raleigh & Gaston 5s.	104½	107	107
Richmond & Danville 6s.	102	102	102
Sav. Fla. & West. 5s.	109	109	109
Seaboard 4s, Stamped.	84	84½	84½
Seaboard Adjusted 5s.	71½	72	72
Seaboard & Roanoke 5s.	103½	104½	104½
South Bound 5s.	105½	107	107
Virginia Midland 4th 5s.	102½	102½	102½
Virginia Midland 5th 5s.	104½	104½	104½
Virginia Midland 6th 5s.	105½	105½	105½
Wash., Balto. & Annap. 5s.	87½	87½	87½
Washington-Vandemere 4½s.	92	95	95
Western Maryland 4s.	78	78½	78½
Western N. C. Con. 6s.	101	101½	101½
Wilmington & Weldon 5s.	107½	108½	108½

Street Railway Bonds.	Par.	Bid.	Asked.
Anacostia & Potomac 5s.	99½	100	100
Atlanta Con. Street Railway 5s.	104½	104½	104½
Augusta & Aiken Electric 5s.	93	93	93
Balto., Sp. Pt. & C. 4½s.	95½	96	96
Baltimore Traction 1st 5s.	105	105	105
Baltimore Traction (N. B.) 5s.	107½	108½	108½
Charleston City Railway 5s.	102½	103½	103½
Charleston Con. Electric 5s.	96	97½	97½
Danville Traction 5s.	92	94½	94½
City & Suburban 5s (Wash.)	102½	103½	103½
Fairmont & Clarksburg Trac. 5s.	109	109½	109½
Lexington Railway 1st 5s.	93	95	95
Maryland Electric Railways 5s.	97	97½	97½
Metropolitan 5s (Wash.)	104½	105½	105½
Monon. Val. Traction 5s.	96	96	96
Newport News & Old Point 5s.	100½	100½	100½
Norfolk & Portsmouth Trac. 5s.	90	91	91
Norfolk Railway & Light 5s.	99½	100	100
Norfolk Street Railway 5s.	93	93	93
Norfolk & Atlantic Term. 5s.	93	93	93
St. Joseph R. L. & P. 5s.	99½	100	100

United Railways 1st 4s.	83¾	84
United Railways Inc. 4s.	62¾	62¾
United Railways Funding 5s.	87	87
United Railways Notes.	100½	101½
Virginia Railway & P. 5s.	94½	94½

Miscellaneous Bonds.	Par.	Bid.	Asked.
Ala. Con. Coal & Iron 5s.	75	78	78
Baltimore Brick 5s.	83	83	83
Baltimore Elec. 5s, Stp.	98	99	99
Consolidated Gas 5s.	107	108	108
Consolidated Gas 4½s.	94½	94½	94½
Con. Gas, Elec. Lt. & P. 4½s.	88	89	89
Con. Gas, Elec. Lt. & P. Notes.	98½	98½	98½
Consolidation Coal Refd. 5s.	89	90½	90½
Fairmont Coal 1st 5s.	95½	96½	96½
G. B. S. Brewing 1st 4s.	45	48	48
G. B. S. Brewing Inc. 5s.	10	10	10
Mt. Vernon-Woodberry Cot. Duck 5s.	75	75½	75½
Penn. Water & Power 5s.	93	93	93
United Elec. Lt. & P. 4½s.	91	92½	92½

### SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending March 14.

Abbeville Cotton Mills (S. C.)	Par.	Bid.	Asked.
Alken Mfg. Co. (S. C.)	100	65	65
American Spinning Co. (S. C.)	100	162	162
Anderson Cotton Mills (S. C.)	100	48	48
Anderson Cot. Mills (S. C.) Pfd.	100	100	100
Arcadia Mills (S. C.)	90	90	90
Arkwright Cotton Mills (S. C.)	99	100	100
Belton Mills (S. C.)	100	110	110
Brandon Mills (S. C.)	100	80	80
Lancaster Cotton Mills (S. C.)	100	60	60
Chiquola Mfg. Co. (S. C.)	100	160	160
Clifton Mfg. Co. (S. C.) Pfd.	99	99	99
Clinton Cotton Mills (S. C.)	100	100	100
Courtney Mfg. Co. (S. C.)	93	93	93
Dallas Mfg. Co. (Ala.)	99	99	99
D. E. Converse Co. (S. C.)	75	75	75
Drayton Mills (S. C.)	90	90	90
Eagle & Phenix Mills (Ga.)	106	106	106
Easley Cotton Mills (S. C.)	162	175	175
Enoree Mfg. Co. (S. C.)	95	95	95
Enoree Mfg. Co. (S. C.) Pfd.	95	100	100
Gaffney Mfg. Co. (S. C.)	65	70	70
Gainesville Cotton Mills (Ga.)	72	80	80
Glenwood Cotton Mills (S. C.)	100	100	100
Grantville Mfg. Co. (S. C.)	135	145	145
Greenwood Cotton Mills (S. C.)	57	60	60
Grendel Mills (S. C.)	90	100	100
Hartsville Cotton Mill (S. C.)	175	175	175
Henrietta Mills (N. C.)	160	175	175
Inman Mills (S. C.)	99	99	99
King Mfg. Co. J. P. (Ga.)	80	85	85
Lancaster Cotton Mills (S. C.)	130	130	130
Lancaster Cot. Mills (S. C.) Pfd.	97	100	100
Langley Mfg. Co. (S. C.)	75	75	75
Laurens Mills (S. C.)	115	115	115
Limestone Mills (S. C.)	155	155	155
Lockhart Mills (S. C.)	50	50	50
Lockhart Mills (S. C.) 1st	95	95	95
Loray Cotton Mills (N. C.) Pfd.	90	90	90
Marlboro Cotton Mills (S. C.)	99	102	102
Mills Mfg. Co. (S. C.)	99	102	102
Molloy Mfg. Co. (S. C.)	90	90	90
Monarch Cotton Mills (S. C.)	110	110	110
Newberry Cotton Mills (S. C.)	125	130	130
Ninety-Six Cotton Mills (S. C.)	130	150	150
Norris Cotton Mills (S. C.)	115	115	115
Orr Cotton Mills (S. C.)	90	95	95
Pacolet Mfg. Co. (S. C.)	99	99	99
Pacolet Mfg. Co. (S. C.) Pfd.	95	100	100
Parker Common	20	20	20
Parker Pfd.	120	120	120
Pelzer Mfg. Co. (S. C.)	63	63	63
Poe Mfg. Co. P. W. (S. C.)	98	98	98
Saxon Mills (S. C.)	120	120	120
Spartan Mills (S. C.)	110	125	125
Triton Mfg. Co. (Ga.)	130	130	130
Tucapau Mills (S. C.)	310	350	350
Union-Buffalo (S. C.) 1st Pfd.	5	5	5
Union-Buffalo (S. C.) 2d Pfd.	5	5	5
Victor Mfg. Co. (S. C.)	110	115	115
Warren Mfg. Co. (S. C.)	80	90	90
Warren Mfg. Co. (S. C.) Pfd.	100	105	105
Washington Mills (Va.)	28	28	28
Washington Mills (Va.) Pfd.	106	110	110
Watts Mills (S. C.)	105	105	105
Whitney Mfg. Co. (S. C.)	105	105	105
Williamson Mills (S. C.)	120	125	125
Wissacott Mills (N. C.)	135	135	135
Woodruff Cotton Mills (S. C.)	95	100	100
Woodside Cotton Mills (S. C.)	100	100	100

### A Valuable Publication.

The National City Bank of New York has issued an indexed copy of its bulletin, "United States Securities and Government Finance," covering the year 1912, this being an assemblage of its bulletins issued for the several months. The publication treats of many topics, and is very interesting, besides being valuable for reference. It bears the impress of care throughout, and in connection with its publication the statement is made that every effort is made to obtain reliable information for it.

### FINANCIAL CORPORATIONS.

Ala., Decatur.—The Bank of Commerce has begun business; capital \$200,000; Col. C. H. Harris, president; John L. Brock, first vice-president; J. L. Hutton, second vice-president; W. B. Shackelford, cashier; J. William Pole, assistant cashier.

Ala., Decatur.—The City National Bank of Decatur, a new concern chartered with \$100,000 capital, began business February 27; directors, John D. Wyker, president; J. H. Calvin, vice-president; R. P. McEntire, second vice-president; A. E. Jackson, cashier. Thomas W. Wirt is also a director and incorporator.

Ala., Fayette.—C. A. Beasley, E. P. Goodwin and Thos. H. Robertson give notice that they intend to organize the Alabama State

Bank & Trust Co. of Fayette with authorized capital of \$25,000 and to begin business when \$15,000 are paid in.

Ala., Tusculum.—The Colmet County Bank, with paid in capital of \$25,000, is reported organized to begin business about April 1. J. C. Spraggins is president; W. G. Halsey, first vice-president; R. J. Wilson, second vice-president; Leslie Ennis, cashier; E. B. Almon, attorney; directors, Messrs. Spraggins, Halsey, Almon and Wilson. T. H. Gambill, J. H. Spangler, J. C. Walker, T. W. Williams, G. S. Henderson, W. W. White, D. H. Walker, E. O. Halsey, T. R. Jones, J. W. McWilliams and J. B. Moody.

Ark., Little Rock.—Teter & Co. of Little Rock, private bankers, have filed incorporation articles; capital \$200,000; subscribed and paid in capital \$139,000; incorporators, Edward T. Teter, Otto C. Schuck and Eugene A. Teter.

Ark., Norfolk.—The Citizens' Bank of Norfolk business; capital \$200,000; Col. C. C. Hutchison is president; William Hargrave, vice-president and treasurer.

D. C., Washington.—A \$500,000 company is reported organized under a West Virginia charter to conduct business in Washington, purchasing second trust notes and also conducting a general real estate loan business and possibly handling real estate. Bates Warren, a builder, is president; Orrin G. Staples, vice-president; Richard E. Claughton, secretary, other directors being R. Golden Donaldson, John F. Wilkins, William L. Browning, W. H. Sholes, E. B. Dean and Samuel Ross.

Fla., Dunedin.—Application will be made to charter the Bank of Dunedin, a new concern; capital \$20,000; incorporators, H. W. Bivins of Clearwater, Fla.; J. M. McClung, Walter Bull, E. P. Young and E. W. Nigels of Dunedin; Peter O. Knight and D. F. Conoley of Tampa, Fla. H. W. Bivins is president; J. M. McClung vice-president, and H. B. Earthenam cashier.

Fla., Kissimmee.—The South Florida Title Co., capital \$50,000, is reported organized and will have branches in all the principal towns of Southern Florida. P. A. Vans Agnew is president; Lewis O'Bryan, vice-president and general manager; W. B. Crawford, secretary and treasurer. Offices already opened at Arcadia and Fort Myers. Headquarters at Kissimmee.

Fla., Fort Meade.—Application has been made to convert the Commercial Bank of Fort Meade into the First National Bank of Fort Meade, capital \$25,000. S. H. Brown is president and L. L. Bean cashier.

Fla., Sarasota.—Application has



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**JNO. B. RAMSAY, V.-P. and Chm. Bd. of Dir.**  
**WM. INGLE, Vice-President.**  
**JOHN B. H. DUNN, Cashier.**  
 Capital \$2,000,000 Deposits \$21,670,000  
 Surplus and Profits \$2,175,000  
 Accounts of Banks, Bankers, Corporations and Individuals solicited.  
 We invite correspondence.

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 United States Depository and Disbursing Agent  
 Capital \$100,000  
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 A general banking business transacted.  
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 REALTY DEPARTMENT has sites for manufacturing industries. Modern Methods of management of property.  
**EDWARD T. CANBY, President.**  
**J. ERNEST SMITH, V.-Pres. and Gen. Counsel.**  
**WM. G. TAYLOR, Treasurer.**  
**HARRY W. DAVIS, Secretary.**  
**W. W. PUSEY, 2d Title and Real Estate Officer.**

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 Wm. S. Hammond, Cashier.  
 Saml. W. Tschudi, A. Cash. R. E. Bolling, A. Cash.

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Capital - - - \$1,000,000  
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 July 15th, 1908, Surplus and Profits, \$671,631.60  
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**WALDO NEWCOMER, President.**  
**SUMMERFIELD BALDWIN, Vice-Pres.**  
**R. VINTON LANSDALE, Cashier.**  
**C. G. MORGAN, Asst. Cashier.**  
 Accounts of Mercantile Firms, Corporations, Banks Bankers and Individuals Invited.

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OF MARYLAND  
 Home Office, - - BALTIMORE, MD.  
**Total Assets Dec. 31, 1911,**  
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 Surplus - - - \$3,000,000

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A. H. S. POST - - President

Bank is chartered with \$30,000 capital by F. C. Andrews, S. H. Floyd, Jr., and Earle N. Floyd. H. H. Gosa and A. T. Leggett are also mentioned.

N. C., Angler.—The Bank of Angler is chartered with \$10,000 capital by W. O. Tarver, Ector H. Smith and N. O. Dobbins of Wilmington.

N. C., Castalla.—The Bank of Castalla, capital \$25,000, with \$5000 subscribed, has been chartered by S. J. Bartholomew & Co., T. A. Matthews, J. L. Blackwell and others.

N. C., Hoffman.—A new bank is reported organized with authorized capital of \$10,000 by F. T. Giles and others.

Okla., Afton.—The First National Bank of Afton has been granted a charter; capital \$25,000. This is a conversion of the Bank of Afton.

Okla., Enid.—The Central State Bank of Enid chartered; capital \$50,000; petitioners, A. E. Stephenson, Geo. J. Gensman and Fred Gensman. Business is to begin May 1.

Okla., Sperry.—The State Guaranty Bank of Sperry, capital \$10,000, is chartered; incorporators, Joseph M. Wren of Avant, Okla.; J. D. Winters, G. E. Heck, Elvis Holbert and A. L. Buck of Sperry, Okla.

Okla., Tulsa.—American National Bank of Tulsa is chartered; capital \$100,000. J. W. McNear is president and L. W. Baxter cashier.

S. C., Anderson.—The Dime Savings Bank incorporated; capital \$25,000; incorporators, Jas. H. Craig, John W. Linley and Leon L. Rice. Business is to begin at once.

S. C., Charleston.—The Charleston Fidelity Corporation has begun business with offices in the Pythian Hall Bldg. Tristram T. Hyde is president. (See "Manufacturers Record," January 23.)

S. C., Cheraw.—The Duvall Trust Co. of

Cheraw, a new concern, will be chartered immediately; capital \$50,000; surplus \$25,000. G. W. Duvall is president and treasurer; M. W. Duvall, secretary, the other incorporators being H. M. Duvall, E. H. Duvall and W. E. Duvall.

S. C., Greenville.—The Mountain City Fire Insurance Co. of Greenville, a new concern, will begin business April 1; capital \$50,000; surplus nominal; incorporators, Thos. F. Parker, J. F. Gallivan, J. W. Norwood, W. C. Cleveland, Wm. F. Robertson, C. O. Allen, Tenn., Chattanooga.—The Realty Trust Co. has applied for charter; capital stock \$200,000; general trust and banking business; incorporators, J. S. Rodriguez, Emmet S. Newton, W. T. Tyler, R. H. Hunt and Alex. W. Chambliss. The business of J. S. Rodriguez & Co., bond dealers and brokers, is to be taken over.

Tenn., Jackson.—The Security National Bank of Jackson is a conversion of the Security Bank & Trust Co.; capital \$100,000; surplus \$30,000. A. M. Alexander is president; W. G. Morgan, vice-president; B. H. Blalock, cashier; Oliver Benton, assistant cashier.

Tex., Clint.—The First State Bank of Clint is reported organized with C. F. Kellogg president, L. R. Thomson vice-president, Edgar D. Brown cashier, and A. F. Mahoney, S. G. Schairer, Sam Carr and John Wyatt as directors.

Tex., Hutchins.—Charter is asked for the Citizens' Guaranty State Bank, a conversion of a private bank; capital \$16,000. W. O. Langdon is president, W. J. Alexander cashier; D. E. Waggoner and others being also interested.

Tex., Freeport.—The Freeport National Bank, a new concern, is chartered; capital \$50,000; surplus \$12,500; incorporators, F. S.

Hastings and W. T. Andrews of Stamford, Tex., E. C. Hastings of Freeport, Tex., and C. A. Jones of Spur, Tex.

Tex., Longview.—The Security State Bank & Trust Co. of Longview is chartered; capital stock \$75,000; incorporators, J. C. Lacy, Edwin Lacy, R. Lacy and others.

Tex., Scurry.—Ward Vance of Scurry is reported to have given a lot for a new bank to be organized by residents of Scurry, Dallas and Kemp, Tex.; capital \$10,000.

Va., Big Island.—The Bank of Big Island, capital \$12,000, is reported organized with the following officers: G. E. Vaughan, pres-

ident; Dr. H. A. Jordan, vice-president; F. L. Mattox, cashier; R. G. Turpin, chairman of the board of directors; Messrs. G. E. Vaughan, H. A. Jordan, E. L. Marshall, R. G. Turpin, Paul DuPont, C. C. Wheat, O. B. Stone, C. W. Logwood, W. B. Watts, D. H. Scott and R. A. Gilliam, directors.

Va., Lynchburg.—Lynchburg National Bank and Lynchburg National Exchange Bank are to be consolidated under name of former with capital of \$500,000 and surplus \$500,000; Wm. V. Wilson, Jr., president; Allen Cucullu and James R. Gilliam, vice-presidents; H. T. Nicholas, cashier, and B. F. Cousins,

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One Year Six Per Cent. Convertible Coupon Gold Notes of

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*Preserves Roads  
Prevents Dust~*



Broadway, Norwich, Conn. Treated with "Tarvia B."

## A Dustless Thoroughfare

"TARVIA B" is a tar product which is liquid at normal temperatures and can be applied to the surface of a macadam road from a modified sprinkling cart, no other apparatus being necessary.

The usual procedure is to sweep the road of surface dust and dirt, apply the "Tarvia B" and keep the traffic away for a few hours until the Tarvia has penetrated into the road surface. This grade of Tarvia is used only on roads where the rolling effect of traffic has made the interstices between the stone very small; on this account a denser grade of bitumen would not do, because it could not percolate into so closely bonded a surface. "Tarvia B," however, finds its way into such surfaces and forms a matrix, holding the fine screenings in position, preventing raveling and erosion, preventing the formation of dust by automobile traffic and greatly prolonging the life of the roadway.

A typical instance of the use of "Tarvia B" is in Norwich, Conn. Mr. E. C. Lillibridge, the Street Commissioner there, wrote as follows:

November 15, 1912

"You ask for my opinion concerning "Tarvia B," to which I will say I do not believe it has an equal. We have used this material for three years, and the more it is used the better satisfaction it gives as to preserving the road and lasting longer. We have the last year used this material on two miles of streets, and today those streets are in excellent condition after the traffic of heavy teams and autos."

In addition to "Tarvia B" there is "Tarvia A" for hot surface application and "Tarvia X" for road construction.

Booklets sent free on request.

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New York Chicago Philadelphia Boston St. Louis Kansas City Cleveland  
Cincinnati Minneapolis Pittsburgh Seattle Corey, Ala.  
The Paterson Mfg. Co., Limited—Montreal, Toronto, Winnipeg, Vancouver, St. John, N. B., Halifax, N. S.



assistant cashier; stockholders called to meet April 1 to ratify action of directors.

Va., Richmond.—The Mortgage Guaranty Corporation of Richmond is incorporated; a new concern; capital \$100,000 cash paid in; owned by Richmond Trust & Savings Co., Inc. John Skelton Williams is president; E. L. Bemiss, vice-president; R. J. Willingham, secretary and treasurer; directors, Messrs. Williams and Bemiss, also Jas. G. Tinsley, S. D. Scudder, J. B. Beasley, J. A. Moncure and S. M. Woodward.

W. Va., Keystone.—Application is made to convert the Bank of Keystone into the First National Bank of Keystone; capital \$50,000. J. K. F. Steele is president and R. L. Bailey cashier.

W. Va., Worthington.—A movement is reported under way to organize the First National Bank of Worthington. G. W. Millan, Z. F. Davis and C. W. Robinson are said to be interested.

### NEW SECURITIES.

Ala., Montevallo.—J. M. Reynolds, Mayor, will, it is reported, receive bids inside of a month for \$600,000 of 5 per cent. 20-year school building construction bonds; denomination \$1000.

Ala., Oneonta.—An election is called for April 3 to vote on \$150,000 of Blount county road bonds.

Ala., Tuscaloosa.—The City Commissioners have authorized the issue of \$30,000 of 6 per cent. paving bonds for Greensboro Ave. and Broad St.

Ark., Little Rock.—The State Senate has defeated the bill for a bond issue of \$750,000 of Arkansas State bonds.

Ark., Little Rock.—The \$500,000 of bonds of the Central Clay Drainage District of Clay County are reported sold to the Lewis W. Thomson Securities Co. of St. Louis and the Lesser-Goldman Cotton Co. of Little Rock and St. Louis.

Fla., Bradentown.—The city has sold to the Bank of Bradentown at not less than par the \$75,000 of bonds voted October 23, 1912. They are 5 per cent. 30-year bonds, denomination \$500 each, and are for various purposes thus: \$11,000 water-works, \$10,000 sewer system, \$41,000 street improvement, \$3000 municipal building and \$5000 sewer and

drainage. George B. Wallace is Mayor and L. L. Hine, City Clerk.

Fla., Clearwater.—Bids for \$370,000 of Pinellas county road bonds are to be opened at noon April 15 by the County Commissioners at Clearwater.

Fla., Jacksonville.—Bids will be received before noon Thursday, April 3, by the Commissioners of Duval county for \$250,000 of 5 per cent. bonds, this being the last installment of an issue of \$1,000,000. Frank Brown is clerk of the Board. Further particulars will be found in the advertising columns.

Fla., Key West.—Application is to be made to the Legislature for authority to issue \$100,000 of 5 per cent. 30-year bonds. Wm. B. Curry, Chas. W. Lowe and E. M. Semple have been appointed committee by City Council.

Fla., Miami.—G. A. Worley, J. W. Watson, T. V. Moore, A. A. Boggs, C. D. Leffler and E. C. Romfh give notice that they will have application made to the Legislature to provide for a special election in Dade county on bonds to buy water-front on Biscayne Bay, to build county docks and wharves thereon, besides establishing a board of dock commissioners.

Fla., Ocala.—The Marion County Hospital Association has authorized the issuing of \$10,000 of 6 per cent. 10-year building bonds; denomination \$100, \$500, \$1000; dated probably May 1.

Fla., Titusville.—The J. B. McCary Company of Atlanta is reported to have purchased at 95 and interest the \$29,000 of 5 per cent. 28-year water-works bonds.

Ga., Americus.—The \$80,000 of Sumter county road bonds are reported to have been defeated.

Ga., Columbus.—An ordinance has been introduced in the City Council to provide for an election on \$60,000 of hospital bonds.

Ga., Columbus.—An ordinance is passed for an election June 7 on \$50,000 of bonds to complete payment for the \$200,000 bridge at Dillingham St.

Ga., Dublin.—The City Council has adopted a resolution to call an election soon on a bond issue thus: \$30,000 for street improvements, including curbing; \$10,000 for sewers, etc.; \$7000 for new school building and \$3000 for improvements at Stubbs Park.

Ga., Vidalia.—On April 5 an election is called for \$15,000 of water and light improvement and \$10,000 of city office, fire department and jail building bonds.

Ky., Horse Cave.—The Farmers' Deposit Bank of Horse Cave is reported to have bought the \$12,000 of 5 per cent. school building bonds at par.

Ky., Lexington.—The City Commissioners have authorized the sale of \$13,574.11 of 6 per cent. city improvement bonds for asphalt paving, curbing and guttering. J. E. Cassidy is Mayor and James J. O'Brien City Clerk.

Ky., Middlesboro.—B. A. Fuson, County Judge, announces that the election for road bonds in Bell county will be held May 13, as the order calling it for March 4 failed to provide for special registration in Pineville and Middlesboro as required by law.

Ky., Munfordville.—Hart county has defeated the issue of turnpike bonds.

Ky., Pineville.—A report from Frankfort, Ky., says that the State Court of Appeals has declared void the \$30,000 school-bond election at Pineville, as the issue would increase the indebtedness beyond the constitutional limit.

Ky., Wickliffe.—A report says that D. M. Farson of Chicago has bought at par \$25,000 of 6 per cent. 2-11-year serial first lien drainage bonds of Ballard county.

La., Homer.—At a recent election \$40,000 of school construction bonds of Homer District No. 13 are reported to have been voted.

La., Opelousas.—The St. Landry School Board has ordered an election for April 16 in Opelousas school district on \$20,000 additional school-building bonds.

La., Shreveport.—Defeated: \$50,000 of State fair improvement and \$150,000 of central market-house bonds. It is stated that \$150,000 of bonds for paving, drainage, etc., carried.

La., St. Martinville.—The Police Jury contemplates an issue of \$100,000 of public-roads bonds.

Mo., Centerville.—Bids will be opened March 25 at noon for \$75,000 of 5 per cent. serial, general-improvement bonds of Queen Anne county, dated July 1, 1912; three to mature each year. E. John Merrick is Clerk.

Miss., Aberdeen.—Bids will be received by the Supervisors of Monroe County at Aberdeen until 2 P. M. April 7 for \$35,000 of 5½ per cent. 11-25-year road bonds, \$500 each. Bids for less than par and interest not considered. G. G. Ray is clerk of board.

Miss., Collins.—The Board of Supervisors of Covington county have under consideration the question of issuing \$50,000 of road bonds for District No. 1.

Miss., Fulton.—At 2 P. M. April 7 there will be sold at public outcry at the courthouse in Fulton \$65,000 of Itawamba county road bonds for not less than par; interest not to exceed 6 per cent.; bonds dated July 1, 1913. Anderson & Long, Tupelo, Miss., are attorneys for the county.

Miss., Georgetown.—The Council contemplates calling an election on \$7500 of water-works bonds.

Miss., Magnolia.—The Board of Supervisors of Pike County have authorized the issuing of \$20,000 of good roads bonds for the Fourth District.

Miss., Mississippi.—The Hibernia Bank & Trust Co. of New Orleans bought at 100.55 the \$10,000 of 6 per cent. school bonds of Mississippi District.

Miss., Quitman.—The Board of Supervisors is reported to have sold the \$50,000 of court house and jail bonds.

Miss., Laurel.—Bids will be received until 2 P. M. April 1 for \$15,000 of water, \$30,000 of sewer and \$25,000 of school bonds. D. A. Scarborough is City Clerk.

Miss., Meadville.—Franklin county is reported to have voted in favor of the proposed issue of courthouse bonds. A. R. Moore is chancery clerk.

Miss., Mississippi City.—The Hibernia Bank & Trust Co. of New Orleans has purchased the \$10,000 of 6 per cent. graded school bonds at \$10,052.50 and expenses.

Miss., Pittsboro.—The \$42,500 of 30-year Topshaw Swamp Land District bonds are reported sold to the Bank of Derma, Miss., at \$11,500, the Commissioners to pay for surety bonds and the bank to also make certain concessions.

Miss., Yazoo City.—The Board of Supervisors has now fixed Friday, May 2, for an election on \$300,000 of road bonds of Yazoo county. S. S. Griffin is Clerk.



Hassam Pavement on Exchange Street, Portland, Maine. Laid in 1908, no repairs necessary.

Hassam Pavement is the ideal pavement for all conditions. It combines the maximum strength of a necessary foundation and embodies about 20% more stone as a wearing material throughout the entire mass than any other known method of concrete construction. Our Compressed Concrete with Bituminous Wearing Surface is the best form of pavement for all medium and light traffic, it is noiseless, resilient and sanitary and requires but little expenditure for repairs. For heavily travelled streets our Hassam Granite Block Wearing Surface is the best known form of pavement.

A handsome hand book on Hassam Pavements will be sent on request.

**HASSAM PAVING COMPANY**

**Worcester, Massachusetts**



Miss., West Point.—It is proposed to issue \$1000 of 6 per cent. bonds or warrants for a city library. Dave Cottrell is Mayor and J. L. Young Clerk.

Mo., Jefferson City.—The State Auditor is quoted saying that about \$700,000 of the remaining \$3,000,000 of State Capitol building bonds have been sold.

Mo., Joplin.—The date of the special election to vote on \$60,000 of municipal light plant enlargement bonds has been changed from March 11 to April 15.

Mo., Kansas City.—Bids will be received, it is reported, until 2 P. M. March 17 for \$26,162 of 6 per cent. 1-10-year serial park fund certificates. T. C. Harrington is secretary of the Park Commissioners.

Mo., Kansas City.—Bids will be received until 2 P. M. March 17 by Thomas C. Harrington, secretary of Park Commissioners, for \$26,162 park fund 6 per cent. 1-10-year certificates.

Mo., St. Louis.—The issuing of \$9,000,000 of bonds to improve present sewer system is recommended by Sewer Commissioner Chas. A. Moreno.

N. C., Burlington.—An election is to be held soon on \$40,000 of schoolhouse bonds. J. H. Freeland may then give information.

N. C., Charlotte.—A bill has passed the Legislature authorizing an election in Charlotte on \$50,000 of school bonds.

N. C., Charlotte.—The proposed issue of \$325,000 of bonds of Mecklenburg county is for the following purposes: \$35,000 for building bridges, \$75,000 for a new jail building and \$215,000 for funding floating debt.

N. C., Cary.—The Board of Education has ordered the issuing of \$25,000 of Cary township, Wake county, graded school building bonds. Zebulon W. Judd is superintendent.

N. C., Fayetteville.—Bids will be received until 10 A. M. April 7 for \$25,000 of 5 per cent. 20-year coupon bonds of Cumberland county. Address D. Gaster, treasurer, Fayetteville, N. C. A. B. Smith, chairman of the board. Further particulars will be found in the advertising columns.

N. C., Lexington.—April 22 an election is to be held to vote on \$300,000 of Davidson county good-roads bonds.

N. C., Lincoln.—Lincoln county has voted \$300,000 of road-improvement bonds.

N. C., Raleigh.—The Board of Aldermen has passed a resolution to issue \$100,000 of 5 per cent. bonds to fund the floating debt.

N. C., Raleigh.—An election is to be held the second Tuesday in August to vote on \$1,000,000 of Wake county road bonds.

N. C., Raleigh.—A bill is reported passed by the Legislature providing for the issuing of \$1,142,500 of 4 per cent. 40-year bonds to meet the present deficit in the State treasury and to provide for permanent improvements for the State institutions. The apportionment is as follows: Deficit, \$600,000; equipping new State buildings, \$75,000; central heating plant, \$4000; rearranging old Supreme Court building, \$40,000; Morganton Hospital, \$50,000; Goldsboro Hospital, \$25,000; Agricultural and Mechanical College, \$25,000; University, \$100,000; State Normal, \$50,000; Agricultural and Mechanical at Greensboro, \$17,500; Appalachian Training School, \$15,000; Cullowhee Institute, \$15,000; East Carolina Training School, \$40,000; Tuberculosis Hospital, \$20,000; new site for School for Blind, \$30,000.

N. C., Selma.—Bids will be received until 4 P. M. March 26 for \$5000 of 6 per cent. \$500 bonds for water-works and electric-light completion. J. A. Mitchener is Mayor.

N. C., Statesville.—The County Commissioners of Iredell County have, says a report, authorized an issue of \$125,000 of county road bonds, this being Series C. Bids will be received for them until April 7. J. E. Boyd is clerk.

N. C., Statesville.—The First National Bank of Cleveland, O., was awarded at \$640.60 premium \$30,000 of 5½ per cent. Iredell county bonds for county home. J. E. Boyd is County Clerk.

N. C., Wilson.—An election will be held April 15 on \$80,000 of bonds, which may be to enlarge and rebuild the municipal electric power plant or for street improvements.

N. C., Winston-Salem.—The \$150,000 of 5 per cent. funding bonds of Forsyth county have been sold to the Security Trust Co. of Spartanburg, S. C., at a premium of \$437.50. They mature thus: \$50,000 in 10 years, \$50,000 in 20 years and \$50,000 in 30 years.

Okl., Stigler.—Petitions are being circulated calling for an election to vote on \$30,000 of courthouse bonds.

S. C., Little Mountain.—An election is or-

dered April 1 in Little Mountain school district on \$2000 of 6 per cent. \$100 refunding bonds. J. B. Derrick and others are school trustees.

S. C., McColl.—At an election called for March 31 a vote will be taken on \$30,000 of water-works, \$20,000 of sewer and \$100,000 of electric-light bonds.

S. C., Rock Hill.—A report says that \$75,000 of 4½ per cent. 20-year school-building bonds, denomination \$1000, will be offered for sale. C. K. Chutzberg is secretary and treasurer.

Tenn., Centerville.—An election is called for March 29 on \$300,000 of Hickman county road bonds.

Tenn., Clarksville.—A mass-meeting at Clarksville has voted to have Montgomery county issue \$500,000 of bonds, of which \$300,000 shall be for roads and \$200,000 for bridge over the Cumberland River.

Tenn., Columbia.—A bill is before the Legislature to authorize an issue of \$75,000 of bonds for the erection of a new school building at Columbia.

Tenn., Henderson.—An election is to be held March 28 on \$50,000 of water-works and electric-light bonds.

Tenn., Jackson.—The City Council has authorized the issue of \$25,000 of bonds for water-works improvements.

Tenn., Knoxville.—Bids will be received until 11 A. M. March 27 for \$24,000 of Knox county high school bonds. John W. Drummond is County Judge.

Tenn., Lawrenceburg.—Bids will be received, says a report, until noon April 8 by E. E. McNely, judge of Lawrence county, for \$15,000 of 5 per cent. semi-annual 10-15-year optional school bonds. Further particulars will be found in the advertising columns.

Tenn., Lonsdale, P. O. Knoxville.—A bill has been passed by the Legislature authorizing the issuing of \$30,000 of funding street and school bonds.

Tenn., Morristown.—Bids will be received until March 15 by W. D. Bushong, City Treasurer, for \$30,000 5 per cent. 10-year paving bonds; denomination \$1000 each.

Tenn., Nashville.—City Council has passed on second reading bills authorizing \$300,000 of reservoir repair bonds and \$100,000 of electric-light plant extension bonds.

Tenn., Sevierville.—On April 5 Sevier county will offer for sale at Sevierville \$185,000 of 5 per cent. 20-year turnpike bonds. A. F. Marshall is Clerk and H. D. Bailey chairman of the County Court. Further particulars will be found in the advertising columns.

Tenn., Union City.—\$60,000 of Obion River Drainage Association bonds are reported sold at par to the new First National Bank of Columbus, Ohio.

Tex., Abilene.—The \$150,000 of Taylor county courthouse bonds to be voted on March 29 will be 5-40-year 5 per cents. T. A. Bledsoe is County Judge.

Tex., Athens.—April 5 Athens precinct, Henderson county, will vote on \$100,000 of road-improvement bonds.

Tex., Austin.—A bill is before the Legislature and favorably reported in the House for an issue of \$3,000,000 of bonds for the penitentiary system.

Tex., Baird.—The \$75,000 of Callahan county road bonds are reported defeated at the late election.

Tex., Dallas.—An ordinance has passed first reading for the issue and sale of \$275,000 bonds for a new city hall. They are 4½ per cents; denomination \$1000 each.

Tex., Dallas.—A general election is called for April 1 to vote on city bonds for purposes and in amounts as follows: \$250,000 for public-school grounds and buildings, \$500,000 for parks and playgrounds, \$400,000 for electric-light plant and lighting system; interest rate 4½ per cent. W. M. Holland is Mayor and J. B. Winslett, City Secretary.

Tex., Denison.—Steps are being taken to place on the market \$100,000 of high-school bonds.

Tex., Dublin.—There are being offered for sale, says a report, \$44,000 of 5 per cent. 10-40-year school construction bonds of Dublin district; denomination \$1000. J. W. Dunlap is secretary.

Tex., Edna.—Voted: \$3000 of Edna independent school district bonds.

Tex., Goliad.—Spicer & Co. have purchased at \$25 premium \$20,000 of 5 per cent. 5-40-year independent school district bonds.

Tex., Jacksonville.—About April 14 an election will be held on \$10,000 water extension bonds and \$25,000 sanitary sewer bonds. J. E.

McFarland is now Mayor, but M. L. Earle will be Mayor after April 8.

Tex., Lacoste.—A report says that the \$10,000 of school-building bonds were approved by a large majority at the recent election.

Tex., Lockhart.—The school bond election for \$20,000 is reported to have resulted against the issue.

Tex., Longview.—An election on \$100,000 of street-paving bonds will, it is reported, be held soon.

Tex., New Boston.—A recent election resulted, according to reports, in a vote to issue \$15,000 of water-works construction bonds.

Tex., Orange.—The recent city election on \$20,000 of bonds was carried by a large majority.

Tex., Port Lavaca.—All bids received March 1 for \$135,000 of 5 per cent. road bonds of District No. 2, Calhoun county, are reported rejected, and the securities may be sold privately.

Tex., San Antonio.—Bids for \$240,000 of bonds of Improvement District No. 4 are soon to be invited. Fred Fries is City Clerk.

Tex., Waco.—Bids are reported received up to March 11, but no award yet made, for the 5 per cent. 30-year bonds voted February 6 thus: \$120,000 school, \$100,000 street improvement, \$25,000 sanitary sewer; denomination \$1000. The City Secretary is in charge.

Tex., Walnut Springs.—A city election is called for April 15 on \$10,000 of street-improvement bonds.

Tex., Wichita Falls.—W. W. Brown, secretary School Commissioner, Wichita Falls, says there will be issued about April 1 \$50,000 of 5 per cent. 40-year bonds, denomination \$500, for purchase of site and erection of building and equipment. Bids received April 15. He is in charge. Bonds were voted March 6.

Va., Clintwood.—S. J. Jennings of Johnson City purchased at 101 the \$54,000 of 5 per cent. 2-30-year Dickerson county road bonds.

Tex., Jacksonville.—It is proposed to call an election to vote on bonds for sewerage system.

Va., Blacksburg.—Bids are to be received

until noon March 17 for \$6000 of city bonds, 6 per cent. 30-year. F. W. Eheart is Mayor.

Va., Graham.—On April 1 an election will be held on \$7500 of school-building bonds.

Va., Lovingson.—Voted: \$35,000 of bonds for purpose of constructing a macadam road from Arrington to Roseland, in Nelson county.

Va., Petersburg.—Steps are being taken to issue \$100,000 of bonds for erection of school for colored children.

Va., Richmond.—A city bond issue of \$1,000,000 is proposed by a resolution adopted by the administrative board, the proceeds to be devoted to improvement of streets and also of Shockoe Creek.

W. Va., Berkeley Springs.—The proposition to hold an election on \$20,000 of water-works improvement bonds is reported abandoned.

W. Va., Parkersburg.—It is ordered that an election be held April 8 on \$300,000 of 4 per cent. 24-year high-school building and repair bonds in denominations of \$500 and \$1000. James A. Wetherell is president and George D. Heaton secretary of the Board of Education.

W. Va., Ronceverte.—The City Council contemplates issuing \$5000 of paving bonds.

W. Va., Wheeling.—Bids will be received March 27 from 2 A. M. to 3 P. M. for \$11,000 of Market St. repaving bonds, \$22,000 of Virginia St. repaving bonds, \$29,500 of Eoff St. repaving bonds, and \$7000 of 14th St. repaving bonds, all 5 per cent. and in denomination of \$500 each. These are respectively known as Street Improvements Nos. 11, 12, 13 and 9. James P. Maxwell, George Hook and Fidelius Riester are Commissioners.

#### FINANCIAL NOTES.

A report from Nashville, Tenn., says that the Anderson-Hawkinson Company has purchased the insurance agency of Thomas Goodall.

The Bank of Althelmer at Althelmer, Ark., has increased its capital to \$25,000.

Henry L. Doherty & Co., 60 Wall St., New York, are offering for sale \$3,500,000 of one-year 6 per cent. notes of the Gas Securities Co., dated March 10, and which carry the right of conversion into the preferred and common stocks of the Utilities Improvement Co.



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**SOME** seven years ago this great financial institution purchased 2 WALES Visible Adding and Listing Machines—gave them the merit-proving test of five years rigid service—after which they bought 6 more—and now, as a final proof of their implicit confidence in the WALES, have ordered 37 more, making 45 WALES in all. That is what the National City Bank of New York thinks of the

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Enthusiastic endorsement of the WALES has been given by over 1500 other banks—by the International Harvester Co.—by Sears, Roebuck & Co.—by the Victor Talking Machine Co.—by the Pennsylvania Railroad—by the United States Government (user of 264 WALES)—and by thousands of users in every line of business.

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# Classified Opportunities

## MEN WANTED

**INVENTORS WANTED TO WORK ON SALARY.** National Invention Corporation, 306 Hill Bldg., Nashville, Tenn.

**SECOND HAND** in spinning-room wanted; new mill in Maryland; man with family preferred. Address No. 1215, care Manufacturers Record.

**WANTED**—An experienced man as secretary of Ocala Board of Trade. State salary expected and furnish references. Address R. C. Muncester, Ocala, Fla.

**ESTIMATOR WANTED** in office of general contractor; must be able to take off quantities correctly and quickly on all classes of buildings; man with technical training preferred; state salary and experience. No. 1213, care Manufacturers Record.

**AMERICAN SERVICE CO.,** Pittsburgh, require concise memoranda of experience of logging railway engineers, lumber-mill builders, drainage engineers and several architectural draftsmen for Southern appointments.

**WANTED**—Good mechanics to use and sell graduated caliper and which-way levels; paying proposition. Ernst G. Smith, 234 North 3d St., Columbia, Pa.

**WANTED**—A first-class man who understands the manufacture of cottonseed products and commercial fertilizers, who can invest from five to ten thousand dollars, to take active management of plant west of Mississippi River. State age, experience and references in first letter. Address No. 1220, care Manufacturers Record.

**AN ESTABLISHED** real estate firm, controlling some of the best real estate in Richmond, wants to secure the services of an energetic man who can assist in managing sales department. To the right person an attractive offer can be made. Address City & Suburban Sales Co., Inc., 713-14 Mutual Building, Richmond, Va.

**WANTED**—Experienced machinist capable of taking charge of a manufacturing plant; one that is in position to take substantial interest in the company. Our product is being tried out with the largest systems in the country, and we are now about ready to manufacture and market same. This is a good proposition and only reliable and capable applicants will be considered. Monarch Brake Co., Cumberland, Md.

**WE DESIRE** the services of a high-class man familiar with every detail of pipe, fittings and mill supplies, in the position of assistant to manager and to devote a part of his time to traveling. Location, large Southern city. This is an opportunity for an exceptionally capable man, as no other will be considered. Address, with full information as to salary, experience and references, No. 1192, care Manufacturers Record.

## AGENCIES WANTED

**WANTED**—To represent manufacturers exclusively in Texas; staple lines preferred; tri-city service—Dallas, Houston, San Antonio; references furnished. Standard Supply Co., 709 Gibbs Bldg., San Antonio, Tex.

**WANT** to establish office in Richmond or Norfolk, Va., representing a Southern lumber and mill-work manufacturer. Purpose handling blueprints and estimating. This will succeed. Address No. 1225, care Manufacturers Record.

**MARYLAND AND DISTRICT OF COLUMBIA AGENCY WANTED** for office specialties and articles selling to the hardware trade by an experienced salesman. Other exceptionally good propositions will also be considered. Address No. 1214, care Manufacturers Record.

**WANTED**—Sales agency for all lines pertaining to builders' specialties; East Tennessee as territory; can furnish satisfactory references to interested concern; modern warehouse facilities. Address Daniel Briscoe, Jr., 325-327 State St., Knoxville, Tenn.

## SITUATIONS WANTED

**PUBLICITY MAN AT LIBERTY AFTER MARCH 1.**—Any commercial club or chamber of commerce desiring the services of a trained publicity man with experience as secretary and more than twenty years in practical newspaper and development work, is invited to write No. 1209, care Manufacturers Record, for information.

**COMMERCIAL SECRETARY** at liberty after July 1 desires location in wide-awake Southern town, 15,000 or over; experienced; can produce results; familiar with modern methods on membership, civic work, industrial work, wholesale and retail trade extension; leaving present position on account of cold winters. Address No. 1218, care Manufacturers Record.

**A MAN** with 19 years' experience in a manufacturing concern of some size, and of late years in full charge as treasurer and acting president, wishes executive position or position leading to such. Accustomed to deciding questions of moment and policy, and handling men. Also familiar with machinery. Best references. Address No. 1210, care Manufacturers Record.

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Rate 20 cents per line per insertion. Minimum space accepted, four lines. Maximum space accepted, 24 lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 18c. per line; 300 lines 16c. per line; 500 lines or more, 15c. per line.

**MANUFACTURERS.**—Let us furnish you the man you need in your experimental department, or let us furnish ideas. We originate, to your order, new devices or improve old ones. Ask us about our free service. The National Invention Corporation, 306 Hill Bldg., Nashville, Tenn.

## CHEMISTS

**MANUFACTURERS.**—Economy in operation and uniformity in product best gained by careful analytic control. Fully equipped for analysis and control of industrial processes and products. Holtzendorf Laboratories, Memphis Trust Bldg., Memphis, Tenn.

## GEOLOGIST

**GOVERNMENT GEOLOGIST** with varied experience examining mineral lands for Government now open to examine undeveloped lands and properties for private parties who demand economy and highest credentials. Address No. 1221, care Manufacturers Record.

## BANKS

**THE PALMETTO NATIONAL BANK,** Columbia, S. C., capital \$250,000, solicits accounts of banks, firms, corporations and individuals, either commercial or savings accounts.

## EDUCATIONAL

**RENSSELAER POLYTECHNIC INSTITUTE, TROY, N. Y.**—Courses in Civil, Mechanical and Electrical Engineering, and General Science, leading to the degrees of Civil Engineer (C.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), and Bachelor of Science (B.S.). Special courses in engineering and science. Splendidly equipped new engineering laboratories. Send for catalogues to Registrar.

## TYPEWRITERS

**\$37.50—ROYAL TYPEWRITER, REBUILT LIKE NEW.** Send for special bargain list of used machines taken in exchange for rebuilts. R. J. Nicholson, 41 St. Paul St., Baltimore, Md.

## TYPEWRITER SUPPLIES

**HIGHEST QUALITY TYPEWRITER SUPPLIES.**—Exclusively oil carbon and mineral coloring matter used in manufacture of carbon paper, which enables us to guarantee absolutely clean work and permanent copies. Our ribbons are made of imported silk, giving much additional strength. They are guaranteed non-fading and long wearing. Address: A. Sylvester Edmonds, care of American Ribbon & Carbon Co., 607 Gould Bldg., Atlanta, Ga. Please mention Manufacturers Record in writing.

## BLUEPRINT MACHINE

**FOR SALE**—A 42-inch Everett-McAdam blueprint continuous machine in good condition. For particulars and terms address J. H. Johnston, Box 126, Tuscaloosa, Ala.

## CAPITAL WANTED

**WANTED**—Party to invest \$25,000 or more in a going furniture factory with well-established trade; centrally located for all markets; side tracks connecting with eight railroads and five steamboat lines; new brick buildings; individual motors; automatic sprinkler system; business now owned by one party; will make splendid offer. Address No. 1222, care Manufacturers Record.

**PARTY** with 19 years' experience in basket and fruit-package manufacturing, in both operative and executive capacities, and having good will of a 25-year widely known business with \$75,000 per year sales, desires capital to manufacture. Can give very attractive costs and established selling prices to interested parties. Will take about \$50,000 to build and operate as should be done. Best references. Address No. 1224, care Manufacturers Record.

**CAPITAL WANTED.**—A party with \$10,000 interested in manufacturing yarns from cotton waste can get an attractive proposition by addressing No. 1211, care Manufacturers Record.

## BUSINESS OPPORTUNITIES

**BUILDING FUNDS WANTED.**—Parties owning jointly valuable central business property in live Southern city wish to secure funds for erecting store buildings; want money for five years; want \$25,000 to \$50,000; have ample high-class improved business and residence property and farm lands absolutely unencumbered to offer as security. Address "Building Funds," 904 Fourth National Bank Bldg., Atlanta, Ga.

**WE DESIRE** to finance, manufacture and sell any first-class machines made of iron, steel, brass or wood; have fine shop and selling facilities. P. O. Box 828, Charlotte, N. C.

**A CONTRACTOR** with both standard and narrow gauge steam shovel outfits, now idle, wants work, and will make close price on work of sufficient magnitude. Address P. O. Box 955, Atlanta, Ga.

**OPPORTUNITY** for someone wanting a location for brick and tile making; splendid clay market and shipping facilities; will take stock in the plant for site and clay. Frank Kittridge, Harviell, Mo.

**IF YOUR ARE LOOKING** for an ideal factory or manufacturing site in the middle West, you want to correspond with me. Am about to locate in the city referred to and want to hear from others contemplating a change of location. City is an ideal location for residence and a strategic location for factories, being on three railroads, and has river competition, which insures always low freight rates. Natural resources unrivalled; coal plentiful and cheap; unlimited supply of limestone; enough straw burnt and dumped into river every year to operate paper mill. Address No. 1223, care Manufacturers Record.

**RETAIL LUMBER YARD FOR SALE.**—Owing to a serious accident, which leaves me unfitted for active business, I must sell my long-established yard and small but well-equipped planing mill; located in a bustling town of 4000 in the Shenandoah Valley of Virginia, at the junction of two trunk lines of railroad; am doing a good business; stock new and well selected. Address F. Preston Jones, Basic City, Virginia.

**\$5000 WORTH OF STOCK** for sale in an incorporated contracting Co. doing business in the best city in the Southwest. The position of superintendent at a salary of \$150 per month goes with the stock. You don't have to pay all cash. Plenty of work on hand and lots in sight. Address No. 1216, care Manufacturers Record.

**MANUFACTURERS — INVESTORS.**—No quicker way to fortune than to market a good invention. We have them for sale. Write Adam Fisher Mfg. Co., 88-16, St. Louis, Mo.

**WANTED**—A partner with \$10,000 to take interest in a business which has paid \$8000 a year for four years. Address Box 800, Richmond, Va.

**ACTIVE, energetic man, 38 years old, with 20 years' commercial experience, would buy out or buy an interest in good well-established business, manufacturing preferred, where active services and capital of from five to twenty thousand dollars can be used. Business must be on a proven paying basis. Best of references furnished. All replies strictly confidential. Address P. O. Drawer 61, New Orleans, La.**

## VIRGINIA HOMESTEADS

**VIRGINIA.**—Gentleman's country home to let for the winter; beautiful colonial house, furnished, with hunting privileges, 20 miles west of Richmond, on picturesque Upper James River; good train service and automobile road; local and long-distance phone; large brick, 18 well-lighted rooms, two baths, hot-water heat, open fireplaces; beautiful lawn; six acres; splendid hunting; many deer, fox, rabbits, quail, ducks, geese, wild turkey; close to mountain and ocean; delightful winter; never really cold; bright crisp days in which "to exist is to enjoy." W. E. Harris, 911 E. Main St., Richmond, Va.

## FURNISHED APARTMENT FOR RENT

**N. Y. CITY** handsomely furnished apartment; beautiful view over Central Park; high, cool; 6 rooms and bath; April or May to October; \$75 monthly. "M," 333 Central Park West.

## FACTORY SITES

**FREE, FREE, FREE SITES** for FACTORIES on reasonable conditions; splendid locations and transportation facilities; a growing, thriving city; 8 railroads; numerous steamship lines, and many other advantages. Address Ballentine Realty Corporation, Norfolk, Va.

## R. R. TERMINAL AND FACTORY SITE

**FOR SALE.**—Large acreage near Atlanta, on Southern Railway, desirable for manufacturing. Also large tract in Birmingham suitable for railroad terminal or manufacturing. Coffield Investment Co., Atlanta, Ga.

## INDUSTRIES WANTED

### MISCELLANEOUS

**KENOVA, W. VA.,** offers unsurpassed advantages for manufacturing enterprises—free sites, cheap gas, cheap coal, three trunk-line railroads with belt line and switches, interurban electric line to cities in West Virginia, Kentucky and Ohio; two navigable rivers; various kinds of raw materials easily available; best markets economically reached. Kenova-Huntington Land Co., Huntington, W. Va.

**JANE LEW,** in West Virginia's greatest gas field, wants industrial plants; cheap gas, cheap factory sites, good railroad facilities, pleasant and economical living conditions. Geo. B. Waggoner, Treas. Board of Trade, Jane Lew, W. Va.

**MEMPHIS** is the greatest distributing city in the South, because she is the gateway and geographical center of Dixie; because she has 17 railroads and the Mississippi River, equal to as many more railroads "in making the rates." Memphis is the greatest inland cotton market and greatest center of hardwood production in the world, and is in the midst of a most rapidly developing and wonderfully fertile section with most eager markets. Memphis offers unparalleled advantages to distributing houses of all kinds and all sorts of manufacturers, especially woodworking establishments and cotton and cotton products and structural-iron mills. Memphis has the greatest business body in the country ready to welcome and co-operate with you.

Address John M. Tuther, Secretary Business Men's Club, Memphis, Tenn.

## INDUSTRIAL PLANTS FOR SALE

### COTTON MILL

**DON'T PASS THIS.**—Best bargain in Texas in 5000-spindle cotton mill. For particulars apply Texas Realty & Loan Co., Gonzales, Texas.

### COTTON WASTE YARN MILL

**FOR SALE**—Cotton waste yarn mill; 9 sets cards, 3600 spindles; ample help; good demand for product; healthy location; live town; small capital needed. Address No. 1212, care Manufacturers Record.

### SASH, DOOR AND BLIND FACTORY

**SASH, DOOR AND BLIND FACTORY FOR SALE.**—A well-equipped and modern woodworking plant in Mobile, Ala.; real estate consists of practically two squares, upon which there is a well-built mill building of ample size; in addition, a concrete office, glazier's warehouse and commodious storeroom; machinery is modern, practically new; comprises complete woodworking outfit, including boilers, engines, shafting, planing mill and drykiln with appurtenances.

Location convenient to business district; city water; cheap and abundant electric power to be had from local company if desired; railroad siding into yard.

Raw material plentiful; fine local trade with immense opportunity for selling output in surrounding district. Price \$35,000; easy terms; 6 per cent. deferred payments.

Jas. K. Glennon & Co., Mobile, Ala.

### FLOUR MILLS

**FOR SALE.**—This offer is not only a first-class 100-barrel Nordyke & Marmon mill, but carries with it a well-established business and reputation. Annual business about \$100,000. Plant is in operation and giving high-class results, and is in first-class condition. Good home, good town, good business—it hasn't an undesirable feature. Box 101, Covington, Tenn.

**FOR QUICK SALE.**—Complete three-stand flour mill (Ty-sa-man make); best equipment; has been run about four years; in No. 1 condition. Also set of best corn burrs, fully equipped, and one 25-foot 3-foot face Fitz steel overshot, good as new. Price \$600 on the dollar. Can sell the wheel separate. Address J. E. Cloninger, Hickory, N. C.

## TIMBER ESTIMATOR

**WANTED.**—Banks, trust companies, lumbermen and manufacturers requiring intelligent estimates on standing timber, either hardwood or pine, to address T. O. Price, 4301 Charlotte Avenue, Nashville, Tenn. Reference, Hermitage National Bank.



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